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OVERSIGHT ON NUTRITIONAL STATUS OF LOW-INCOME AMERICANS IN THE 1980's

HEARING

BEFORE THE

SUBCOMMITTEE ON NUTRITION

OF THE

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

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CONTENTS

	Page
Dole, Hon. Bob, a U.S. Senator from Kansas, opening statement	1
Pryor, Hon. David H., a U.S. Senator from Arkansas	50

CHRONOLOGICAL LIST OF WITNESSES

Kinney, Hon. Harry, mayor, Albuquerque, N. Mex	2
Bode, John, Deputy Assistant Secretary for Food and Consumer Services, U.S. Department of Agriculture, accompanied by Robert Leard and Isabel Wolf	6
Danforth, Hon. John C., a U.S. Senator from Missouri	25
Brown, Dr. Larry, director, community health improvement program, Harvard School of Public Health, Boston, Mass	29
Butterworth, Dr. Charles E., professor and chairman, Department of Nutrition Sciences, University of Alabama, Birmingham, Ala	38
Bogle, Margaret, pediatric nutrition consultant, Department of Health, Little Rock, Ark	41
Munro, Dr. Hamish, director, Human Nutrition Research Center on Aging, Agricultural Research Service, USDA	45
Rush, Dr. David, professor of pediatrics, obstetrics, and gynecology, Albert Einstein College of Medicine, Bronx, N.Y.	54
Popkin, Dr. Barry M., department of nutrition, University of North Carolina, Chapel Hill, N.C.	66
Blount, C. Richard, director, Missouri WIC program	69
Cunningham, Father William T., director, Focus: HOPE	74
McGinnis, Dr. Michael, Deputy Assistant Secretary for Health (Disease Prevention and Health Planning), Department of Health and Human Services	84
Kotelchuck, Dr. Milton, assistant professor of health policy, Harvard Medical School	94
Graham, Dr. George G., professor of pediatrics and human nutrition, Johns Hopkins University	102
Sullivan, Bishop Joseph M., Episcopal liaison, National Conference of Catholic Charities	115
Abromaitis, Sister Josanna, Our Daily Bread Soup Kitchen	120
Greenstein, Robert, director, Center on Budget and Policy Priorities	121
Frick, Judy, coordinator, Wichita Junior League's Child Watch Project and president, Kansas Action for Children	126

APPENDIX

Pryor, Hon. David H., a U.S. Senator from Arkansas, statement	133
Danforth, Hon. John C., a U.S. Senator from Missouri, statement	133
Rush, Dr. David, professor of pediatrics, obstetrics, and gynecology, Albert Einstein College of Medicine, Montefiore Center, Bronx, N.Y., statement	137
Bode, John W., Deputy Assistant Secretary, Food and Consumer Services, U.S. Department of Agriculture, statement	144
Brown, Larry, Ph. D., member of the faculty, Harvard School of Public Health, Boston, Mass., statement	158
Butterworth, Dr. C. E., Jr., professor and chairman, Department of Nutrition Sciences, University of Alabama in Birmingham, University Station, Birmingham, Ala	166
Bogle, Margaret, L., director, nutritional services, Arkansas Children's Services; instructor, Department of Pediatrics, University of Arkansas College of Medicine, and pediatric consultant, Arkansas Department of Health, statement	170

Page

Munro, Dr. Hamish N., director, Human Nutrition Research Center on Aging, Agricultural Research Service, U.S. Department of Agriculture, statement ... 173
Popkin, Barry M., John S. Akin, Jeff S. Bass, David K. Guilkey, and Pamela S. Haines, talk by, "Nutritional Effect of School Lunch and School Breakfast" ... 177
Questions for Dr. Popkin and answers thereto ... 188
McGinnis, Dr. J. Michael, Deputy Assistant Secretary for Health (Disease Prevention and Health Promotion), Department of Health and Human Services, statement ... 190
Kotelchuck, Milton, Ph. D., M.P.H., assistant professor of social medicine and health policy, Harvard Medical School, statement ... 200
Sullivan, Most Reverend Joseph M., Auxiliary Bishop of Brooklyn, representing the National Conference of Catholic Charities, statement ... 211
Greenstein, Robert, director, Center on Budget and Policy Priorities, statement ... 216
Frick, Judy, coordinator, Wichita Junior League's Child Watch project and president, Kansas Action for Children, statement ... 227
Interreligious Taskforce on U.S. Food Policy, statement ... 235
de Bearn, Gaston, assistant director, Hoffmann-La Roche, Inc., letter dated April 14, 1983, to Senator Dole, with attachments ... 236

OVERSIGHT ON NUTRITIONAL STATUS OF LOW-INCOME AMERICANS IN THE 1980'S

WEDNESDAY, APRIL 6, 1983

U.S. SENATE,
SUBCOMMITTEE ON NUTRITION,
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:08 a.m., in room 332, Russell Senate Office Building, Hon. Bob Dole (chairman of the subcommittee) presiding.

Present: Senators Dole and Pryor.

Also present: Senator Helms.

STATEMENT OF HON. BOB DOLE, A U.S. SENATOR FROM KANSAS

Senator DOLE. Good morning. Let's start this hearing. Is Mayor Kinney here? Good. Why don't we start with you, Mayor. You have come a long way, and the Department will be here in any event.

Let me say, while the mayor is getting ready, we certainly welcome those who have come here today to testify before the Nutrition Subcommittee on the nutritional status of low-income Americans in the 1980's. Some of you have traveled a long way, and we appreciate this—we look forward to hearing what you will have to say.

The information you provide will be helpful as we make policy decisions during the 98th Congress with regard to Federal nutrition programs. Senator Danforth will be along in a moment, and he, although not a member of the committee, has a longstanding and special interest in this area.

I have been concerned, as I know other Senators have been concerned, about the increasing reports of a rise in domestic hunger and malnutrition—reports that are reminiscent of the times two decades ago when the Field Foundation did its studies in low-income areas in this country.

As a result of the work of the Select Committee on Nutrition, many of the current Federal nutrition programs came into being, with the food stamp program acting as the mainstay for other efforts like the child nutrition programs, WIC, and the elderly feeding programs, which target particularly vulnerable segments of our population.

Recently, with the enactment of the jobs bill into law, an expanded commodity distribution program went into effect. This was based on S. 17, which was a bipartisan attempt to increase efforts to provide surplus commodities to local charitable organizations

serving the poor and unemployed like food banks, soup kitchens, and churches.

For whatever reasons, there seem to be many families and individuals who are not being reached, or satisfied, by existing nutrition programs. The character of a nation will be judged by the way it treats its poor. It is embarrassing to have a leader of a foreign nation visit and make reference to our soup kitchens. When Prime Minister Nakasone from Japan attended a reception in his honor during a recent visit, he said: "I am aware of the economic difficulty facing the United States today. When we see pictures of people standing in soup lines and sleeping in their cars, we are very saddened."

The prolonged nature of the current economic recession has created great hardship for many families and individuals across this country. We should not exercise judgment concerning policy options in Federal food assistance programs without listening to those who come in daily contact with the people our decisions may affect. We need to evaluate what is happening at the local level with regard to the nutrition needs of low-income Americans in order to make reasonable and responsible decisions concerning Federal nutrition policies here in the Congress.

There is a scarcity of available data on the nutrition needs of low-income Americans in the 1980's, and many of our witnesses have new statistical evidence to share with us. We are especially concerned about the elderly, whose problems are unique and compounded by more complex health needs and a lack of accessibility to available assistance in many cases.

Children, infants, and pregnant mothers are another group that is particularly vulnerable because of the health implications of a lack of good nutrition at critical stages of growth. There are some new studies available on the effectiveness of the WIC program, as well as the school lunch and school breakfast programs, and we will hear about these from one of our panels.

So first, Mayor, we are very happy to have you with us today, and please, if you would begin your testimony, we will near about what is happening in Albuquerque. I think Senator Domenici wanted to introduce you, but he is in a Budget Committee markup. Since he is unable to be here, you may proceed in any way you wish. If you could summarize your statement, we would appreciate it.

STATEMENT OF HON. HARRY KINNEY, MAYOR, ALBUQUERQUE, N. MEX.

Mayor KINNEY. Thank you very much, Senator.

I am Mayor Harry Kinney, mayor of Albuquerque. We appreciate this opportunity to meet with you today and discuss this very critical issue. Much media attention has been directed to the problems faced by cities in feeding of hungry and providing shelter for the homeless.

Albuquerque is certainly not immune to those problems. As mayor of one of the country's fastest growing Southwestern cities, I am frequently faced with requests from the social services agencies,

churches and other private charities for municipal assistance in supporting their programs.

As a result, in conjunction with the county and the Governor's office, the United Way, the University of New Mexico, and the Albuquerque public school system, I formed a human services coalition to coordinate delivery of social service programs.

In January of this year, three public hearings were held by the coalition to gather data on the impact of Federal cutbacks and to accurately assess local needs. The hearings and the studies resulting from them have enabled us to evaluate this problem and to deal with it.

In general, what we have discovered is that our nutritional programs are less related to program cutbacks than to overall economic conditions. Albuquerque's unemployment rate is about 9 percent. Although the rate has increased, it has not been a dramatic rise. However, the small communities surrounding the city have had unemployment rates up to 35 percent. These are areas where mining and energy production jobs have drastically decreased.

As these residents leave Grant and Farmington and other cities, they come to Albuquerque looking for jobs and temporarily tax the city's resources.

In addition, Albuquerque, as a Sun Belt city, is on the route for those moving from the Northern and Eastern cities, looking for employment. We often find families staying in Albuquerque for a week or two who are temporarily requiring assistance.

The Salvation Army has experienced a 43 percent increase in the number of meals served in the past year. The Good Shepherd Refuge, traditionally serving single transient men, is seeing more and more temporarily unemployed persons. They are serving 200 meals per day as opposed to 159 per day only 3 months ago.

The Road Runner Food Bank, run cooperatively with the State Department of Human Services, is providing a half million tons of food annually to nonprofit groups and to individuals on an emergency basis. This is up from 135,000 tons in 1980.

Buddy Gallegos, director of the food bank, notes that, "What we're seeing now is not the poor we've always had but * * * people from the East who've come here looking for work." The First Baptist Church is serving 200 meals per day under a new program instituted this past fall. St. Vincent De Paul Society, Catholic Social Services, and a number of other groups are also experiencing increased demands.

All Sun Belt cities also face the problems associated with undocumented workers. Although the Albuquerque police department cooperates with the Immigration and Naturalization Service in reporting evident cases, we must deal with those people who are, for one reason or another, choose to live in our border States. These temporary residents tax city resources and private agencies enormously.

Because many traditional forms of aid are not available to undocumented workers, the private agencies are particularly burdened, and city, State, and Federal agencies must assist these groups in providing additional funds.

In 1977 food stamp benefits were liberalized, and demand went up. The demand has significantly decreased since then, and is now

stabilized. All New Mexico food stamp directors feel the program is taking care of the needy families permanently residing in our State. Emergency food stamp requests have not significantly increased, and those needs, too, are being met in our State.

With the recent increases in allocation for women, infants, and children, which you, Senator Dole, supported, we should be able to maintain modest support levels for those in our population with great nutritional risk.

The school lunch program in Albuquerque public schools is feeding 38,840 children per day. That is about normal and about what it had been in the past. The demand is slightly up, but not significantly. In 1982, the number of free meals increased by 800 per day, and the number of full-pay and reduced-fee meals decreased by 1,000 children per day. At the same time, enrollment systemwide decreased by 1,500 students. The net result is that the program is holding its own. Even though APS provides free meals to 54 percent of those participating, increased prices for full-pay students are offsetting the 30-percent cut in Federal funds.

One area where we see a growing need for meal services is for senior citizens. The demand for meals in Albuquerque provided by the Older Americans Act funds has increased 21 percent in the past year. We were able to meet an 18-percent increase in demand under current funding levels. Locally, we can accommodate this shortfall by decreasing the number of meals served per week. To take care of the increasing number of persons, funds allocated to us under this program must be maintained or increased.

As mayor, I ask that no further cuts in food stamp and child nutrition programs be made. In fact, I realize that many cities need modest increases. It would be difficult, if not impossible, to further tighten eligibility requirements and still meet our needs. Maintaining current assistance levels is critical to the growing Western States as we cannot deal with new residents and emergency transient needs without seriously cutting aid to our stable population.

The problem as I see it is twofold. First, supporting current assistance levels and accounting for population growth through existing programs; and second, augmenting the serious need for emergency and temporary assistance as we ride out the recession.

In most cases food banks properly run commodity distribution, and private agencies are better able to deal with temporary needs than our complicated Government agencies. It is incumbent on the Federal and local governments to assist these organizations in the coming year.

Albuquerque's Human Services Coalition is a model for sharing of resources and information necessary to supplement existing nutritional assistance programs. I salute Senators Dole and Domenici for including assistance to private charities for purchase and distribution of food in the jobs bill. I understand just today the implementation program has commenced on this bill.

Properly monitored, these measures will go a long way toward directly meeting individual needs without the dilution of funds that always occurs in massive permanent programs.

I also support the recent agreement between the Department of Defense and Department of Health and Human Services to make unsold military commissary food available to food banks and other

distributing agencies. USDA surpluses should be likewise distributed.

We urge you to take quick action and make these products available through the expansion of programs contained in your bill, S. 17.

I did not come here to whitewash the nutritional needs of Americans in the 1980's, nor can I in good conscience support the gloom and doom picture being painted by the media. I realize that my city is much unlike Detroit and Newark, Cleveland, or Seattle, but there, too, as population shifts and industry and manufacturing adjusts to changing worldwide demands, we will find a change in the human service needs.

We need measures to deal with today's problems. We do not need, nor do most mayors want, bigger and more complicated Federal programs.

Thank you very much for your time and consideration this morning, Senator.

Senator DOLE. Thank you for coming all the way from New Mexico to be with us this morning.

I guess, Mayor, what you are suggesting is obviously that the recession has increased the burden on some of the programs, but generally you think the nutrition programs are working quite well; is that correct?

Mayor KINNEY. Yes. The permanent programs are doing quite well. There is a temporary need that we hope to respond to, and I think some of the past actions are responding to that, and hopefully that will not be a permanent need. That will be taken care of on a temporary nature.

Senator DOLE. All right. We would hope, we are not trying to create a new entitlement program. S. 17 was designed to be an emergency measure. At least that is how I view it. I assume others will want to continue it forever once it starts—in an effort not only to eliminate some of the agricultural surpluses, but to get the surpluses to the people who can use them now while we are in this difficult recovery period. Hopefully this will be sustained.

One way we are going to sustain the recovery is to make certain we are watching all the Federal dollars, and that is what Senator Domenici is working on this morning. I appreciate your statement very much.

Are there other cities who have the same type of coalition that you described in your statement?

Mayor KINNEY. I believe so. It is only very recently that we have tried to utilize those private resources in a proper manner. They have done an excellent job, and I am sure people will testify today on some of the challenges and very difficult times they have faced, but we find that sometimes the need is overemphasized because we are all counting the same people. So a person might be counted in four different places as needing food that is not available.

Senator DOLE. Do you get any assistance or do you have any city levies or any State assistance for distribution? If we made the food available, and surpluses were delivered to Albuquerque, would there be money or volunteers or some way to make certain that the right people get the food?

Mayor KINNEY. Yes. There is an existing program principally supported by State funds where commodities are distributed, and I think in a fairly efficient manner.

We have, just on a one-time basis, had a direct appropriation to a group of churches to increase their meals program because this fall and winter has created an unusually heavy burden, and we used a little city money in that, but our budget is fairly limited, and that is the reason additional funds are probably needed.

Senator DOLE. I raised that question when we were dealing with this commodity distribution program. There were some who wanted to put all the money in the distribution end, and it seemed to some of us that we ought to put it in the food end. There should be enough people out there as volunteers, and the States, cities, and counties ought to take an interest in distributing the food. Otherwise, we were going to end up spending all the money in distribution, and there would not have been any left for processing surpluses.

So we would hope, and I think your statement reinforces our belief, that there are people just as concerned at the city and State level as they are at the Federal level, and they are going to see to it that, if we deliver the surplus commodities, they will reach the right people.

Now, there may have to be some temporary assistance, but the last thing we want to do is start spending $100 million a year on distribution and have nothing left for processing or otherwise making surplus commodities available .

Mayor KINNEY. I very much agree. Even in smaller bureaucracies, such as our city, we have a problem in making sure that the money really gets where it needs to be; that is going to be a problem in government forever, the system uses it and not the consumer.

Senator DOLE. Right. It will never go away.

Well, Mayor Kinney, we appreciate your testimony very much, and we also appreciate your coming all the way from Albuquerque. You have had a lot of excitement out there the last couple of days.

Mayor KINNEY. Yes. Some people from North Carolina enjoyed that excitement.

Senator DOLE. I can think of one who was there.

Thank you, Mayor.

Mayor KINNEY. Thank you very much, Senator.

Senator DOLE. Since Senator Danforth has not arrived, John Bode, do you want to be the next victim here?

STATEMENT OF JOHN BODE, DEPUTY ASSISTANT SECRETARY FOR FOOD AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY ROBERT LEARD AND ISABEL WOLF

Mr. BODE. Senator, with me today is Robert Leard, the Administrator of the Food and Nutrition Service, and Isabel Wolf, Acting Administrator of the Human Nutrition Information Service.

Senator, my prepared testimony, today is rather long, and so I would ask that I be able to summarize it and that the full text be included in the record.

Senator DOLE. If Senator Danforth comes in, we might just have to interrupt your testimony.

Mr. BODE. Of course.

Senator DOLE. I assume he is in another hearing, but please proceed. If you would summarize your testimony, that would be helpful. Your entire statement will be made a part of the record.[1]

Mr. BODE. Thank you, Senator.

The most recent information available on the nutritional status of low-income Americans is from the 1977–78 nationwide food consumption survey, and supplemental surveys of food consumption in low-income households conducted in 1977–78 and 1979–80. That information is very helpful to the Department in targeting and appraising food assistance and education efforts.

We have found from it that about 40 percent of all households in the two surveys of low-income groups use food that met the RDA's for all nutrients. Within this low-income group, food stamp program households met approximately 47 percent of the RDA's for all nutrients, and nonfood stamp households met approximately 36 percent of the RDA's.

These figures compared favorably with the nationwide sample of households at all income levels in the 1977–78 survey where 50 percent of all households met the RDA for all nutrients.

In addition, USDA surveys showed that households with low-food costs and low incomes were relatively good shoppers. For every dollar's worth of food, households with low-food costs obtained up to 25 percent more nutrients than higher income household groups.

We realize, Senator, that that data is simply not as current as any of us would like. We do have efforts underway to improve our data collection.

Senator DOLE. When was that, 1977 to 1978?

Mr. BODE. 1979–80 was the most recent data I was referring to. We are trying to improve our data collection capabilities. At the present time the Department has underway two methodological studies which are designed to improve our data collection capabilities both in terms of data validity and cost, and as part of its commitment to the national nutrition monitoring system, the Department also plans to initiate a continuous longitudinal individual food intake survey in 1985. I think that is where we will really start getting a more timely report on nutritional status.

In talking about the continuing support for the nutritionally needy, since this administration came into office, Senator, some significant changes have been made in the nutrition assistance programs. We feel they have been very judicious changes, calculated to reduce the rate of program growth while continuing to protect those in need.

Though these changes have had some budgetary impact, the Federal Government is still spending more than ever before on nutrition assistance. Almost 1 in 10 Americans receive food stamp program benefits, and a greater percentage of school lunch dollars are dedicated to providing meals for children from low-income families than before.

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[1] See p. 144 for the prepared statement of Mr. Bode.

Indeed, we have increased the subsidy for meals served to children from low-income families. Additionally——

Senator DOLE. What is that increase?

Mr. BODE. Since 1980, we have—[confers with colleagues].

Senator DOLE. You can supply it for the record if you do not have that.

Mr. BODE. Yes, sir. The subsidy is about $1.26.

Additionally, we have exercised discretionary authority, consistent with your urging, Senator, to distribute cheese, butter, nonfat dry milk, rice, and cornmeal to low-income households.

Senator DOLE. I know that is authorized, but are you starting on that program?

Mr. BODE. Senator, we are undertaking those distribution activities under discretionary authorities. Of course, the commodity distribution activities under the jobs bill, title II, have not yet been implemented, but we are moving very quickly to get that implemented. I believe we may be implementing the jobs bill, titles I and II, around May 1.

Senator DOLE. Right. I would urge that that be done, because there was considerable sentiment on the committee that certain aspects of the program be mandatory, but it seemed to me that the Secretary had to have some discretion. I think there are some members of the full committee—not the subcommittee—who are going to be watching closely to see if that ever happens. I will not say there was a general view, but there were some who indicated we would probably never distribute anything if we gave the Secretary discretion.

Mr. BODE. Well, we are distributing the rice and cornmeal, as well as the dairy commodities now, sir.

Mr. LEARD. We will make our first distribution in May. We had a 45-day leadtime, Senator, in order to get the orders and find out exact delivery points. We purchased 5.4 million pounds of cornmeal and 5.2 million pounds of rice for shipment in May. We estimate subsequent monthly shipment levels of rice and cornmeal will stabilize at about 2 million pounds of each item.

Senator DOLE. And they will be taken where? To central locations in some States, or will some commodities be delivered right to the soup kitchens or food banks?

Mr. BODE. We deliver to points designated by the States, just about any point within a State that will accept a truckload or more, and in some cases we will make dropoffs of lesser amounts, particularly if it is on the way to another point. We will stop and unload partial loads.

Senator DOLE. The commodities will be packaged in a way that you do not have to get a truckload?

Mr. BODE. Yes, sir. These commodities are packaged for household consumption. Generally speaking, our free delivery to States is in a truckload.

Senator DOLE. Right, and then they are broken down and packaged so that you do not have to break it down further within the State. Are they packaged so that they can then be delivered to various points?

Mr. BODE. Oh, yes, sir.

Mr. LEARD. The State tells us how they want the deliveries. That is why we ask for the leadtime. They designate how much they want in a certain area, and then we can package it and get truckers to deliver it.

Senator DOLE. And you say you have some already in the mix?

Mr. LEARD. Yes, sir. Beginning in May we will be delivering 2 million pounds of rice and 2 million pounds of cornmeal. Now, that will not mean that every State is going to get some because of the limited amount. Some States have chosen to take a large amount of rice and cornmeal in lieu of cheese, and in exchange do it somewhat on a cyclical basis.

Senator DOLE. Do you follow some formula for distribution? I will not say that States are treated unfairly because some States have larger problems than other States, but is there such a formula?

Mr. BODE. Generally we allocate, Senator, based on the percentage of the population below the poverty level within the State.

Mr. LEARD. There are some States that have greater demand for certain commodities than others.

Senator DOLE. Right.

Mr. BODE. We try to take note of the fact that some States have more efficient distribution mechanisms than others in order to meet their special needs.

Furthermore, Senator, we have been able to maintain support for those in need during adverse economic times. We agree with the mayor's comments, and that has been done without adding new permanent programs.

The food stamp program has grown in response to unemployment levels. It is one of several programs providing benefits to almost everyone with income below 130 percent of the poverty guideline.

Also, this administration has taken strong and effective steps to curb fraud, waste and abuse in food assistance programs. We believe this is essential not only for reasons of economy, but also because the legitimacy of food assistance programs in the eyes of the public is threatened when they are known to be abused or wasted.

Senator DOLE. I share that view. I do not know what your record of arrests or prosecutions is, but it may be contained in the statement. I think it is important that we have a vigorous prosecution of food stamp fraud, because when we are trying to deal with the people who ought to be served by the program, the one thing we hear when we are back in our home States is, "Well, I saw somebody ahead of me in the grocery line buying food with food stamps that I couldn't buy."

I do not suggest those are cases of fraud, but we are certainly aware that, even as near as Maryland, there is a case now pending, and I am certain there are many others. Could you supply this information for the record?

[The information referred to above was subsequently received for the record:]

The following are our most recent statistics on Food Stamp Program anti-fraud activities. In particular, a comparison of Fiscal Year 1982 with the prior fiscal year shows that our efforts are beginning to show results. Successful fraud hearings were up 65 percent. The number of people disqualified through prosecutions was up 426 percent. Fraud claim collections were up by 61 percent. Measures of new efforts—

such as referrals for prosecution and claims established—are also up. All these signal a positive trend which we expect to continue in future years.

[As of February 28, 1983 [1]]

	Fiscal year—		Percent increase/ decrease
	1981	1982	
Fraud hearings:			
Upheld	6,552	10,821	+65
Reversed	3,000	1,392	−54
Total	9,552	12,213	+28
Persons disqualified	3,821	9,042	+137
Investigations:			
Completed	30,229	81,498	+170
Dollars involved	$9,389,174.07	$23,855,284.77	+154
Prosecutions:			
Referred	6,768	26,149	+286
Completed	7,116	10,426	+47
Dollars involved	$7,033,949.14	$12,298,227.64	+75
Persons disqualified	705	3,707	+426
Recipient claims:			
Claims established:			
Fraud	$9,963,157	$13,461,284	+35
Nonfraud	$59,689,448	$64,939,425	+9
Claims collected:			
Fraud	$2,852,421	$4,597,960	+61
Nonfraud	$8,080,178	$9,559,487	+18
Compliance:			
Investigations	5,154	5,455	+5.8
Disqualifications	1,613	1,804	+12

[1] As of this date, three State agencies have not reported.

Mr. BODE. I believe that the number of indictments has increased almost 200 percent since fiscal year 1980. It is a large number.

Senator DOLE. There is a lot of trafficking in food stamps—it has happened in Kansas City and Wichita, as well as other States. These criminal merchants are depriving poor people of a lot of goodwill in the process.

Mr. LEARD. Senator, from fiscal year 1981 to fiscal year 1982, the fraud hearings were up 28 percent, persons disqualified by 137 percent. The investigations are up 170 percent. The dollar amount involved is up over 150 percent. Prosecutions were up well over 250 percent, and, of course, the retailer investigations were also up.

Senator DOLE. I remember speaking to a group of retailers about food stamp fraud. I did not get much applause. [Laughter.]

So I do not suggest they all see it happen, but, in any event, if you could make that part of the record, separate from your statement, it would be helpful.

Mr. BODE. We would be happy to, Senator.

I think these figures should not mislead people. We have very much increased our efforts to fight fraud in the nutrition assistance programs, and those increased efforts result in those rising numbers. I think that the actual incidence of fraud in the program is on the decline. It is much like putting more policemen on a beat. The crime rates go up even though the actual incidence of crime has gone down. Where there are more policemen, it is just more of it is being found.

Senator DOLE. Plus, I think our efforts in this committee have given you additional tools. Senator Helms, Senator Leahy, myself, and others sponsored proposals which give you a little more authority, and tighten up the program.

Mr. BODE. Very helpful changes, sir.

Senator DOLE. Why don't you continue?

Jack, please come up here on the right.

Mr. BODE. Sir, of course, the only problem in the food stamp program is not fraud. We simply have a large problem with error that is not really fraudulent, based in fraud, and that error rate is a result of program complexity.

We have tried to address this error with our fiscal 1984 proposals. The administration's proposals for modifying the food assistance programs are consistent also with the Government-wide plan to delay cost-of-living adjustments by 6 months. This does not constitute a reduction in benefits, but is a delay in implementing scheduled changes.

This delay will not have a significant effect because of the substantial reduction in the rate of inflation for food especially. We project that the currently scheduled October adjustment would raise the four-person monthly allotment by $1.

As I indicated previously, we are very concerned about the complications and the administration of the food stamp program which have contributed to the increased error. Our food stamp quality control system indicates that approximately 10 percent of the program benefits were overpaid or issued to ineligible participants. That means that we are wasting over $1 billion a year in the food stamp program.

Our 1984 proposed budget for the program would spend $10.9 billion. This is $766 million less than what the program would cost in 1984 if there were no changes.

Senator DOLE. Is there a relationship between reduction in unemployment and reduction in the food stamp rolls?

Mr. BODE. Most certainly, Senator. Since this administration took office, if you hold aside Puerto Rico since it has been affected by a block grant, food stamp participation has gone up from 19.3 million people a month to 22 million people a month. The food stamp program is very responsive to unemployment.

Senator DOLE. It is sort of an economic barometer.

Mr. BODE. Yes, sir.

Senator DOLE. Do you think one reason for the reduction in program spending would be that people are going back to work and leaving the program?

Mr. BODE. Well, no, sir. We were holding aside the economic conditions in calculating that savings. The $766 million in savings that we are talking about here would be a result of legislative changes, the enactment of legislative changes we are proposing.

Now, I think it is important to note that 80 percent of the savings that we are talking about would come about by reducing misexpenditures rather than by reducing recipients' benefits.

Senator DOLE. Are you talking about error rates?

Mr. BODE. Yes, sir, we would like to see the food stamp program simplified a great deal, streamlined. People who administer the program make the certification decisions. They are carrying a

heavy load, and they have got a lot to know. We want to make their job a little more simple by standardizing some of the deductions so they have less calculations and less decisions to make in the process, and that will cut down on the number of mistakes that they make, and consequently, the number of dollars issued in error.

Senator DOLE. Right. I have noticed those changes. You are talking about the earned income deduction, the standard and shelter deductions and others?

Mr. BODE. Yes, sir, a standard shelter deduction of $140 a month, and that would replace the existing standard deduction, and the itemized excess shelter expense deduction, and save about $125 million a year in erroneous payments.

Second, we would replace the itemized earned income deduction with the standard earned income deduction set at $75 per full-time worker. As you probably know, Senator, that $75 deduction is the same as in the AFDC program, and we will have program compatibility that way with AFDC. Instead of those cases workers having to know two systems; they will know one.

Third, we would retain the dependent care deduction so that households who need to pay for child care in order to work could claim up to $115 a month as a deduction.

These proposals would achieve an estimated $326 million in savings in fiscal year 1984, Senator. Since about one-third of these savings come from simplification and error reductions, the impacts on households are not great, an average loss in benefits of 7 cents a day.

Senator DOLE. I think you also indicate in that paragraph that a substantial number of households headed by women, for example, will receive increases.

Mr. BODE. Yes, sir.

Senator DOLE. Forty-six percent.

Mr. BODE. We also propose to make households where all members receive AFDC payments categorically eligible to receive food stamps. This would simultaneously reduce error and free up staff time to be devoted to more error prone cases. For AFDC only households, we would replace individual determinations of benefit levels with the simplified benefit determination based on average food stamp benefits for AFDC households in each State. The benefits of average households would be unaffected by this proposal, which would save $70 million in fiscal year 1984 through simplification and error reduction.

About 25 percent of the food stamp case load is AFDC only households, which would be affected in this way.

Our proposal to consider persons who live together as one household for food stamp purposes would also save money, an estimated $70 million a year in fiscal year 1984. Establishing and verifying who lives together is easier than determining who purchases and prepares food together and having separate food stamp households under one roof. This proposal would eliminate 8 of a possible 10 decisions for the food stamp case worker.

Fiscal year 1984 savings would be increased by $90 million by our proposal to require certain able bodied persons to work in the community work experience program. Senator, I know that you

have had a great deal of involvement in the work of the pilot projects, and I will not elaborate on the community work experience program. We feel it strengthens the workfare proposal by making it more cost efficient at the local level, and it does a great deal to help the recipients because it helps them improve their job skills. Consequently, they will move off the food stamp rolls more quickly.

Senator DOLE. Do you have some facts and figures to back that up?

Mr. BODE. Yes, sir, we do. I believe that food stamp participants in the workfare projects moved off of the roles about 7 percent faster than like households who were not in workfare.

Interestingly, about 30 percent of the people who participated in workfare said that they would have participated, even if they did not have to, even if there were not a sanction for not participating. So we feel that that is a good proposal and its time has certainly come.

Senator DOLE. Yes. I think if you have information on that, it should be made a part of the record.

Mr. BODE. We will do that, sir.

[The following supplemental information was received for the record:]

COMMUNITY WORK EXPERIENCE PROGRAM (CWEP)

TURNOVER RATES

Information from the first set of demonstrations indicates that the rate of food stamp receipt was 7.8 percent lower during the three months following referral to Workfare than it would have been otherwise. This has occurred for at least three reasons: (1) Workfare encourages people to find employment and, as a consequence, they are no longer eligible for food stamps; (2) persons who do not wish to participate in Workfare drop off Workfare or are sanctioned; and/or (3) in a few cases, Workfare may help identify persons who already have unreported paid work. It should be clear, however, that Workfare does not aim to drive eligible people to withdraw from food stamps by making it overly difficult to comply with program requirements.

CLIENT REACTION TO WORKFARE

As might be expected, the reaction to Workfare has been mixed. The most representative available information on client reactions comes from the survey of 1,000 persons who had been referred to Workfare that was conducted during the first set of demonstrations.

Seventy-seven (77) percent of all respondents believed that able-bodied people should have to work in exchange for food stamps although fewer said they would work at a Workfare job even if they did not have to (29 percent). Eighty-seven (87) percent of those who worked at Workfare jobs had no problems on the job. Of the 13 percent who encountered problems on the job, the most frequent problems encountered were with the supervisor or coworkers and physical demands of the job. (Twenty-one percent of all referrals reported disabilities that limit the kind of work they can do.) Of those who worked at Workfare jobs, 87 percent had no major problems at work and over 70 percent were satisfied with jobsite supervision. Thirty-five (35) percent of those who worked thought Workfare would help them get a job later (primarily by building skills or providing contacts with potential employers).

During the survey 1.2 percent of the respondents reported having filed a grievance or asking for a fair hearing. We also know of these complaints from the sites. (All sites were required to have procedures for handling grievances, and participants could bring unresolved issues to the attention of the National Advisory Committee.) Complaints which came to Food and Nutrition Service's (FNS) attention were lodged by participants in several of the demonstration sites including Tazewell County, Virginia; Nashua County, New Hampshire; Rusk County, Wisconsin; and Springfield, Missouri. Some of the grievances were directed to FNS and addressed by the FNS Workfare Advisory Panel, others were addressed to members of Con-

gress. The complaints cited the demeaning nature of some Workfare jobs, the unfairness of requiring food stamp recipients to work because the political subdivision elected to participate in the demonstration and the compensation of skilled work at a rate less than the standard.

Community legal service groups were involved with complaints made by participants in Tazewell, Nashua, Rusk and Springfield. GAO also investigated the Tazxewell complaints. Two requests under the Freedom of Information Act were received by FNS from Nashua and Tazewell; however, neither resulted in a law suit.

In addition to complaints directed to FNS and Congressmen, participants also made requests for fair hearings. This occurred in San Diego, California; Evansville, Indiana; and Berkeley, South Carolina. In most cases participants had received sanctions when they failed to show up for their Workfare interview. The participants stated that they had not received letters from the Workfare office telling them to come in for the interview. In many of these cases the hearing was decided in the participant's favor.

Mr. BODE. Our proposed changes for fiscal year 1984 will increase the States' opportunities to reduce errors. An additional incentive is needed, however, to reduce State errors from their unacceptably high levels today. Since food stamp funds are exclusively Federal dollars, States lack a strong incentive to improve administration. Error rates are lower in both AFDC and medicaid, where States share in program costs.

We propose to establish State liability for the value of ineligibility or overissuance errors above a 3-percent tolerance level. This will save an estimated $423 million in fiscal year 1984.

Senator DOLE. What is it now?

Mr. BODE. The tolerance level for this year is 9 percent. Current overpayment error rate is 9.75 percent nationally. This 3-percent tolerance level, Senator, is the same as the tolerance level with the AFDC and medicaid programs.

In summary, our food stamp proposals will simplify administration of the program, reduce errors, and provide incentives to obtain employment, and curb the rate of benefit growth.

Our child nutrition proposals, Senator, are basically the establishment of a general nutrition assistance grant. That is a proposal which would consolidate funds expended in the summer food service, school breakfast and child care food programs. Those are programs that we feel have some problems. The nutritional quality of the breakfast meal is not superior to other sources. There is no assurance that the summer food service program benefits are provided to low-income children, and up to 75 percent of the meals served in family day care homes in the child care food program are provided to nonpoor children.

We feel that giving the States greater discretion will enable them to better address the nutritional needs of the people in those States.

Additionally, we have an eligibility verification proposal, which is an effort to reduce error and deter fraud. The Department is proposing that income eligibility determinations for school meals be verified by food stamp offices or, if equally capable, schools.

I am concerned that our proposals are being a little misinterpreted. There is no intention for parents or children to go to food stamp offices. That is simply not our proposal, sir.

We would create an independent reduced price subsidy level. Currently the reduced price subsidy in the school lunch program is indexed so that it accelerates at a rate faster than the rate of infla-

tion. We feel that subsidy should go up at the rate of inflation rather than faster.

We would maintain WIC and CSFP funding, sir.

Senator DOLE. At their present levels or with an increase?

Mr. BODE. At the present levels.

Senator DOLE. Does that include the additions contained in the jobs bill?

Mr. BODE. No, sir. Of course, these proposals were prepared before the jobs bill, and we have not modified the proposals since enactment.

Senator DOLE. What percentage of those who would be eligible to participate in the WIC program are in the program now—a third? If you had enough money to take care of the entire population who might be eligible, how many additional dollars or how many additional people are we talking about?

Mr. BODE. I will let Bob Leard answer that fully, but I would like to point out that the WIC program is set up with a series of priorities, and it was designed in that way with the intention that it was a fixed grant in aid program rather than an entitlement program, and the entire eligible population was never intended to be served, the entire eligible population. Because of these priorities, those who are really in need can be served even though there are smaller percentages.

Senator DOLE. I guess the question is: Even with those priorities, is anyone in the same circumstance as someone already in the program excluded because of lack of funding?

Mr. LEARD. Yes, it is true that not all applicants in the same circumstances have access to WIC benefits. However, the priority system insures that, after a local agency reaches its maximum participation level, applicants with greatest nutritional risk relative to other applicants in the same service area will be served first as vacancies occur. Some local agencies reach maximum participation level before others. Thus, priority II applicants may be enrolled in the program in one area while an applicant of the same status in a different area is placed on a waiting list. However, variations in maximum capacity, and, consequently, in what priorities are served, do not always result from funding limitations. The capacities of individual clinics are also an important determinant of which priorities participate under a local agency. A particular area with limited clinic facilities may have a long waiting list which includes high-priority applicants despite ample statewide program funding.

Senator DOLE. Well, again, I think any information you have there should be made a part of the record.

[The following information was subsequently received for the record:]

WIC ELIGIBLES

Individuals are deemed eligible for WIC based on two criteria, low-income status and the presence of nutritional risk. Existing surveys provide us with the information needed to estimate the number of individuals who qualify by income to participate in WIC. However, there are no data indicating the level of nutritional risk within the income-eligible population. Only a portion of those individuals who are income-eligible will be eligible when the nutritional risk criteria are applied. In fact, the income eligibility limit of 185 percent of poverty allows maximum discretion for

health professionals to provide WIC benefits to those at nutritional risk who are above the "safety net" income limits (or 130 percent of poverty). Therefore, the income-based estimates are larger than actual eligibility. Using data from the 1982 Current Population Survey of the Bureau of Census and from the National Center for Health Statistics, we estimate that 9.7 million individuals were economically eligible for WIC in 1981. For fiscal year 1982 we estimate that, based on income eligibility alone, 10.5 million individuals are income-elgible for the WIC Program. This implies that 21 percent of those persons who were income-eligible participated in the program during fiscal year 1982. For fiscal year 1983, 23 percent of those who are income eligible are currently participating in the program. However, this is an underestimate of the percent of actual eligibles served. It should be emphasized that this rough estimate of potential eligibles excludes the nutritional risk factors which are crucial eligibility criteria in the program. When these factors are considered, the number of eligibles will be less.

States are not required by law or regulations to report waiting lists information or data concerning the distribution of participants in the six priority categories. In some States, policy regarding the targeting of benefits is centralized at the State agency level. These States can report accurately which priority levels they are currently certifying. For other States, however, local agencies exercise almost complete autonomy in this regard. Meaningful statewide generalizations about priorities being reached in these States cannot be made due to the variation among their local agencies.

In the absence of formal reports on priority distribution, the attached data, which provide the priority levels currently being certified, should be considered suggestive rather than definitive. Reports for almost all States in the Northeast Region, for example, indicate that Priorities I-VI are being served. However, it is often true that only isolated local agencies are certifying persons in the lower priority levels, while on a statewide basis, persons in, for example, priority VI, may not as a rule have access to the program. (See attached data report).

The current average number of WIC participants nationally is 2,416,823. Women represent 20.9 percent of the national average, infants 28.6 percent and children 50.5 percent. With the recent allocation of funds under the Emergency Jobs Act, using historical data from Fiscal Year 1982 on participation increases after allocations during the year, we anticipate seeing the most significant impact of the Jobs Act in the latter part of the third quarter, with growth probably levelling off at the end of the fourth quarter to 2.8 to 2.9 million participants

Senator DOLE. I have some questions to submit in writing, and, if you could John, why don't you go ahead and summarize. Then I will call on Senator Danforth.

Mr. BODE. Thank you, Senator.

I think you can see the commonsense in this budget. It responds to the compelling need for the reduction of unnecessary expenditures in order to eliminate a serious deficit. Our budget proposals do this by streamlining program operation while reducing errors and abuses.

Of course, essential program benefits are maintained. Taken together, these proposals are a package that address human, as well as economic, needs, Senator.

I would be happy to answer any questions perhaps after Senator Danforth gives his testimony.

Senator DOLE. Fine, if you do not mind waiting.

Mr. BODE. Not at all, sir.

Senator DOLE. Again, with reference to your testimony, which we will examine carefully, we appreciate the spirit in which it was given. I certainly am a strong supporter of the nutrition programs, but I am also a strong supporter of trying to make certain that the dollars we have go to the people in need. I do not really believe we solve certain problems by not trying to look at ways to tighten up the program. We are certainly willing to take a look at some of your suggestions, particularly with regard to simplification, stand-

ardization, and other areas where we are not actually reducing benefits or eliminating people who should be retained. Maybe we can get back to that after Senator Danforth speaks.

I apologize, Senator Danforth. These are the Department witnesses, and they have spent a great deal of time, and understand the programs very well.

We are happy to have you with us, Senator Danforth.

[Questions submitted by Senator Helms to Mr. Bode and answers thereto:]

Question 1. Would you provide a breakdown on what percentage of WIC participants fall into each of the six priority categories? (I recognize that information may not be available for all States, but it would be helpful to get a picture from those that do compile such information.)

Answer. The Department does not collect data on what percentage of WIC participants fall into each of the six priority categories. Data is collected, however, on the numbers of and percentages of women, infants and children served. Percentages for the end of fiscal year 1982 and the first 8 months of fiscal year 1983 follow:

Reporting period	Percentages served		
	Women	Infants	Children
Fiscal year 1982 (average)	21.8	28.5	49.7
Fiscal year 1983:			
October	21.7	28.2	50.2
November	21.3	28.3	50.4
December	20.9	28.4	50.6
January	20.5	28.8	50.7
February	20.3	29.2	50.5
March	20.5	29.7	49.8
April	20.7	29.9	49.5
May (latest data available)	21.3	29.6	49.0
Average—YTD fiscal year 1983	20.9	29.0	50.1

From State agency planning documents the Department was aware that, at the beginning of fiscal year 1983, many State agencies were limiting participation to priority levels 1-3 or 1-4. However, with the allocation of Emergency Jobs Act funding in April, the vast majority of State agencies have told us they plan to serve all priority levels by the end of the year.

Question 2. Similarly, would you provide a breakdown on the income levels (by percentage of poverty) for participants in the program among the States?

Answer. Nationwide information on the income status of WIC participants by percentage of poverty is not currently available. We have, however, attached the results of a survey of WIC participant income in your home State. This survey, completed early in 1982, was conducted by the North Carolina WIC State Agency, the Department of Human Resources. The data indicate that 64 percent of North Carolina WIC participants were at or below 100 percent of the Office of Mangement and Budget Nonfarm Income Poverty Guidelines. The survey is specific to North Carolina and thus not necessarily representative of the National participant population. However, anecdotal data indicate generally that persons using public health facilities have relatively low incomes, and that the majority of WIC applicants easily meet the income test for WIC.

The National WIC Evaluation, a contracted study, will provide income information on a nationally representative sample of pregnant WIC participants and will closely approximate the national distribution of all WIC participants by income. The final report on the National WIC Evaluation is scheduled for release by June 30, 1984.

DIVISION OF HEALTH SERVICES,
Raleigh, N.C., March 18, 1982.

MEMORANDUM

To: Everett Sasser, Director, USDA special supplemental food program.
From: Mike Hanes, assistant branch head, Nutrition and Dietary Services Branch.
Subject: North Carolina WIC program income survey.

We have just completed our income survey of North Carolina WIC participants. Attached you will find a bar graph and supplementary information that display the state results. We also have this data by region and local agency.

This survey was conducted by having the computer randomly select approximately 10 percent (7,828) of WIC participants statewide. From this sample, we received 6,598 (84 percent) usable responses from local agencies. The remaining 1,230 could not be used because of insufficient data, e.g., participant certified due to current eligibility in Food Stamps or AFDC. However, we feel that the results are representative of the entire WIC caseload (78,000).

This information is being shared with our regional consultants and local agencies to aid them in management decisions.

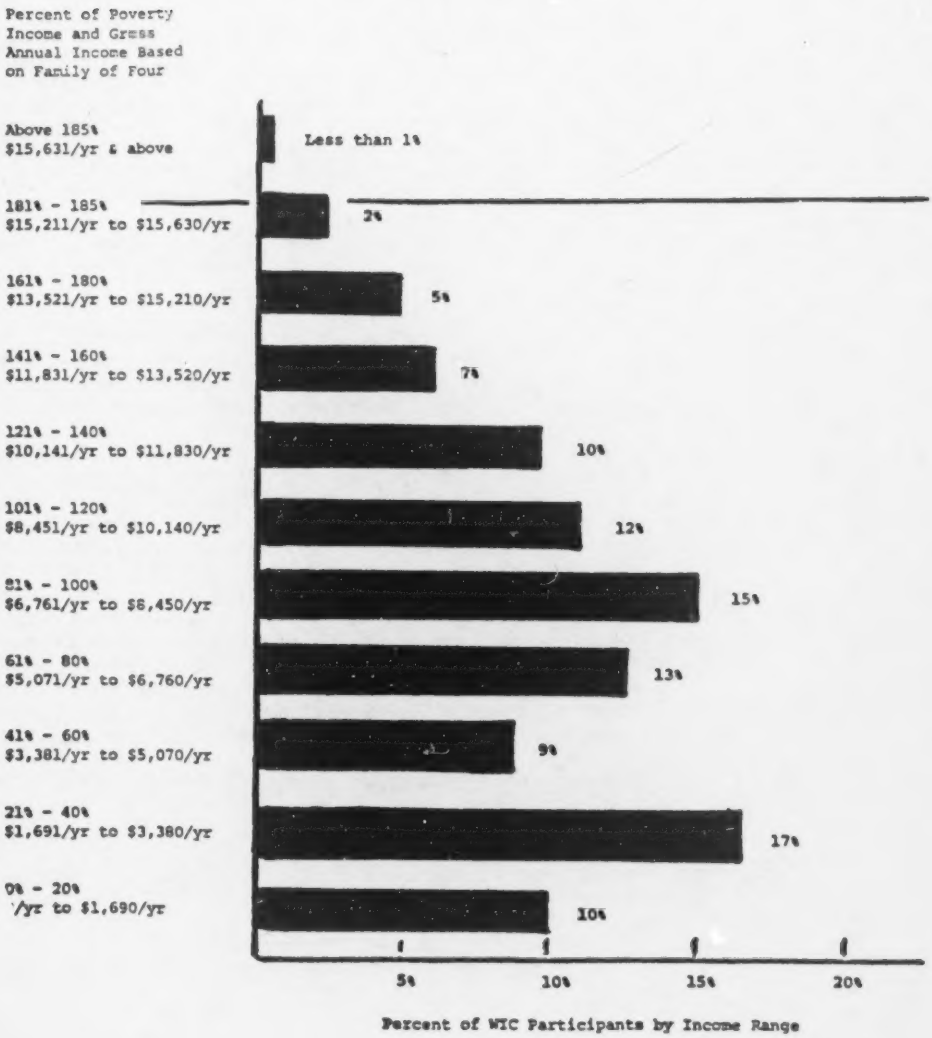
If you have any questions, please call.

RONALD H. LEVINE, M.D., M.P.H.,
State Health Director.

Attachment.

North Carolina WIC Program
Income Survey
March, 1982

5



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Question 3. Do you have any statistics on what percentage of participating WIC mothers are married, unmarried, teenage girls, or other characteristics? Also what percentage of pregnant women (or mothers) are having (have had) a first child versus those with more than one? What percentage of all pregnant women in the United States are participating in the WIC Program? What percentage of all infants? What percentage of all children?

Answer. Based on recent WIC Program data and birth estimates, about 20 percent of all U.S. infants under 1 year old participate in WIC. Based on 1981 estimate of U.S. children 1 to 5 years old, about 9 percent participate in WIC now, WIC Program reports aggregate all women participants (pregnant, postpartum, and breasfeeding), so we do not know precisely now many are pregnant. Assuming 80 percent of current WIC women are pregnant, about 15 percent of all pregnant women (not counting those with abortions or fetal deaths) participate in WIC now.

Currently, statistics on characteristics of WIC women participants, such as their marital status, age, and number of pregnancies, are not available. However, a study of WIC participant characteristics is being planned which will develop a national WIC data base which will contain descriptive information on the program.

We anticipate that this study will take approximately 18 months and will commence early in fiscal year 1984.

Question 4. What information you have about what percentage of WIC participants are also receiving food stamp benefits? What percentage are receiving Aid to Families with Dependent Children? Do you have any information on what percentage of children participating are also enrolled in day care homes or child care centers that participate in the Child Care Food Program?

Answer. Our information on these subjects is very limited and we are now planning to undertake a study of WIC participant characteristics which will provide more detailed information on multiple participation. Based on the 1979-80 National Food Consumption Survey of Low Income Households, about 12 percent of food stamp households also receive WIC benefits. There is no reliable data on AFDC participation among WIC participants. Based on data from the Child Care Food Program (CCFP) evaluation, 12.9 percent of households participating in CCFP in child care centers also receive WIC benefits; 7.8 percent of CCFP center-based children are WIC participants. For family day care homes, about 4.8 percent of CCFP households receive WIC benefits; 3.2 percent of the children are WIC recipients. Because these surveys were intended to provide information about other programs, the data cannot readily be converted to percent of WIC participants receiving other benefits. Further, the sample size of WIC participants in these studies was very small and may not be representative.

Question 5. What is the definition of "nutritional risk" that is used in the WIC program for determining eligibility?

Answer. In both the current and proposed WIC regulations, nutritional risk is defined as:

(1) detrimental or abnormal nutritional conditions detectable by biochemical or anthropometric measurements;

(2) other documented nutritionally related medical conditions;

(3) dietary deficiencies that impair or endanger health; and

(4) conditions that predispose persons to inadequate nutritional patterns or nutritionally related medical conditions.

The regulations futher define nutritional risk by citing examples of conditions which may be used as a basis for certification for infants, children, and pregnant and postpartum women. Examples of these include anemia, abnormal pattern of weight gain, obesity, or underweight, adolescent pregnancy, alcohol, tobacco or drug abuse, multiple pregnancy, chronic infection, and toxemia. Within the Federal parameters, WIC State agencies establish more specific nutritional risk criteria for each of the categories of participants. A competent professional authority on the staff of the WIC local agency determines the nutritional risk of an applicant through a medical and nutritional assessment, including blood tests. Further, the regulations define a nutritional risk priority system to be applied when vacancies occur after a local agency has reached its maximum participation level. The purpose of the priority system is to ensure that those persons at greatest nutritional risk receive program benefits.

Question 6. In areas that have both a WIC program and a Commodity Supplemental Food Program, what is the relative size of each program?

Answer. The attached chart shows the areas in which the Commodity Supplemental Food Program (CSFP) and the Special Supplemental Food Program for Women, Infants, and Children (WIC) operate and the relative size of each Program. Of the 16 areas operating both WIC and CSF Programs, CSFP serves 65.1 percent and WIC serves 34.9 percent of the total WIC and CSFP participation.

AREAS IN WHICH BOTH CSFP AND WIC OPERATE

State/county	Actual CSFP participation 1982	Actual WIC participation 1982	Total CSFP and WIC participation
District of Columbia	7,275	10,711	17,986
Kentucky: Jefferson	7,329	6,212	13,541
North Carolina: Halifax	1,861	649	2,510
Tennessee:			
Shelby	12,419	3,149	15,568
Weakley	329	433	762
Michigan:			
Wayne	42,795	12,858	55,653
Oakland	2,000	5,294	7,294
Louisiana: Orleans	19,428	4,313	23,741
Iowa: Polk	2,448	3,348	5,796
Nebraska:			
Sherman	155	54	209
Thurston	413	111	524
Douglas	2,927	4,228	7,155
Buffalo	146	886	1,032
Scotts Bluff	247	614	861
Lancaster	257	1,261	1,518
California: San Francisco	6,277	2,985	9,262
Totals	106,306	57,106	163,412

Question 7. In the school lunch program, would you provide information on what percentage of students participating fall into each of the three income categories for the past several years, and the Federal expenditures (annually) for each category?

Answer. The following table provides the information that you request.

[By fiscal years]

Meal type	1981		1982		1983	
	Percent of average daily participation	Dollars in millions	Percent of average daily participation	Dollars in millions	Percent of average daily participation	Dollars in millions
Free	41.4	2,023.7	42.8	1,974.7	44.6	2,026.2
Reduced price	7.4	303.6	7.0	214.2	6.9	234.1
Paid	51.6	648.8	60.2	422.3	48.5	442.5
Total [1]	100.0	2,976.1	100.0	2,611.2	100.0	2,702.8

[1] Total may not add due to rounding

Question 8. Some have contended that poor Americans are not receiving sufficient nutrients containing necessary recommended daily allowances. Others have added that the poor differ little from other Americans in the percentage of RDA's that they receive. Do you have any information about the nutrient intake of various income groups which would address this issue?

Answer. A high or low income alone is not predictive of the extent to which Americans obtain their Recommended Dietary Allowances of important nutrients. Both high and low income individuals are known to consume diets of low quality and diets of high quality. Some general trends in nutritional intakes and food purchasing habits by income group can be seen, however.

Based on data from USDA's Nationwide Food Consumption Surveys (NFCS 1977–78), it is known that there is a positive relationship between the amount of money spent on food and the present of households consuming food that meets the RDA. Households with lower incomes generally have lower average food costs than their higher income counterparts. However, the relationship between income and nutrient intake is not as simple as the relationship just described. Lower income house-

holds make different food choices than do higher income households. These differences result in households with lower money value of food per person and lower income receiving greater average nutrient and energy return per dollar's worth of food. The greater nutrient return appears to be associated with the use of larger shares of nutrient rich but inexpensive foods such as milk, eggs, legumes and grain products, and lesser use of meat, poultry, fish, and alcoholic beverages.

Household income is generally positively associated with the nutrient density (nutrients per 1,000 Calories) of foods purchased. Iron and vitamin A are exceptions to this, where income is negatively associated with their density in foods purchased.

In summary, with regard to the overall U.S. population data from the NFCS indicates that in general, income does have a positive influence on the dietary adequacy of households. However, the effect is slightly moderated by differences in spending patterns by low and high income households.

With regard to the school age population, data from the National Evaluation of School Nutrition Programs (late 1980) indicates no substantial difference in nutrient intake between high and low income students on the average. On the average students receive close to or above their RDAs for the most important nutrients with the exception of vitamin B6, magnesium and iron. But these mean statistics do not tell the whole story since a review of the full distribution of students on RDAs shows that there are substantial numbers of students who receive less than ⅔ RDA for some nutrients. Nutrients for which these deficiencies occur and the percent of the school age population receiving less than ⅔ RDA on each are as follows: Calcium 31 percent, Magnesium 63 percent, Vitamin A 41 percent, Vitamin B6 70 percent, Iron 43 percent and Vitamin C 29 percent. A review of just these nutrient data for the 6 nutrients indicates that slightly greater percentages of low income students than high income students fall into the less than ⅔ RDA category.

[Questions submitted by Senator Dole to Mr. Bode and answers thereto:]

Senator DOLE. In March 1978 the then HEW and USDA submitted to Congress a proposal for the development of a national system. It was called "A Comprehensive Nutritional Status Monitoring System." But in October 1981, when you delivered the completed plan for implementing this proposal, the paper was called "A Comprehensive National Nutrition Monitoring System."

Why did you delete the words "nutritional status" from the title? And what does this mean with respect to our getting a handle on nutritional status of the population?

Mr. BODE. The title change in the implementation report submitted in October 1981 reflected our belief that the new title, "A Comprehensive National Nutrition Monitoring System" (NNMS), better described the activities included in the system. There are many activities in NNMS that provide invaluable background information indirectly related to nutritional status of the population. Examples of these activities are USDA's National Nutrient Data Bank and the Nutrient Content of the U.S. Food Supply and the Total Diet Study conducted by DHHS.

The change in title does not change in any way our commitment to obtain the best possible information on the nutritional status of the population. Through the coordinated efforts of USDA and DHHS, we will continue to provide the best possible information on dietary and nutritional status, using today's technologies, within the two Department's funding limitations.

Senator DOLE. Also, with respect to the March 1978 proposal. As I recall you outlined several steps which could be taken to evaluate intervention programs, like the food stamp, school meal, or WIC programs. In the October 1981 plan submitted to Congress and today, you appear to be saying that such evaluations cannot be done.

Why this change of opinion/direction? What new knowledge have we gained over the last three years to bring about this shift in thinking?

Mr. BODE. Senator, there is no change in our opinion and/or direction between the two reports submitted to Congress. As we have stated, nutrition monitoring has an important limitation. A monitoring system designed to provide information systematically and reliably over time about the nutritional and dietary status of Americans, as is NNMS, cannot furnish definitive answers on the effect of nutrition intervention programs.

Food programs, such as food stamp, school meals, and WIC, are offered to diverse populations which are often undergoing concurrent changes in other respects. Consequently, unless assessments of these programs are designed as carefully controlled experiments from the outset, efforts to evaluate them will be frustrated by the presence of a large number of intervening variables that confound the interpretation of the data. This does not mean that questions concerning the effect of a particular

intervention program on the nutritional status of participants cannot be answered. However, answers require specific studies in which data for control groups or for the population prior to intervention are collected and compared with data collected from participants after intervention is initiated.

This, however, does not preclude our collecting data about participation in intervention programs in the ongoing monitoring system. These data are valuable in comparing the dietary status of participants in the various intervention programs with eligible nonparticipants, as well as with the general population. However, one is not able to state conclusively from such analyses whether differences that occur are a direct result of participating in the intervention program or are from some other outside variables not accounted for in the analyses. The Department has conducted such analyses on the 1977–78 Nationwide Food Consumption Survey data and plans to continue in the future.

Senator DOLE. We understand that neither DHHS nor USDA has given this Nutritional Status Monitoring System (NSMS) high priority, and that everything is behind in schedule because of "sheer neglect." What is the exact stage of activity on these items if the system is to be operational by 1987?

Mr. BODE. Senator Dole, let me assure you that the National Nutrition Monitoring System is one of the top priorities in the USDA, within funding and staffing limitations. As you know, the Nationwide Food Consumption Survey (NFCS) is the cornerstone of the Department's contribution to the NNMS. Since the completion of the 1977–78 NFCS, the Department has undertaken a number of methodological studies to improve our ability to measure the dietary status of the American population and special high-risk groups. Our objectives are to improve data quality while minimizing costs and respondent burden. Several studies have been completed or are nearing completion and several are now under way. In addition, the Department through a grant to the Food and Nutrition Board, National Academy of Sciences-National Research Council, is sponsoring a Data Users Conference to prioritize the data needs of our many users in Government, academia, and industry.

With respect to the NNMS, the Department plans to begin a continuous, longitudinal intake phase of the survey in 1985 with fiscal year 1984 funding. Initially this survey will include a monitoring group and all children in households with a person in the monitoring group. However, we plan to expand this to include special high-risk groups, such as low-income, and the entire population (other sex-age groups) as additional funding becomes available. In addition, our current plans are to conduct a household survey of food use, the second major component of the NFCS, in 1987 in conjunction with DDHS's NHANES III. As is the case with the individual intake phase of the NFCS, several methodological studies on household food consumption measures have been completed since the 1977–78 NFCS.

Although no nationwide or special surveys of high-risk groups have been initiated by the Department since the 1979–80 Low-Income NFCS, other aspects of the NNMS have been progressing. These include the Department's work in food composition both by the Agricultural Research Service (ARS) and HNIS; dietary knowledge and attitudes assessment research by HNIS; food supply determinations analyses by the Economic Research Service and HNIS; and research in nutritional requirements and means of measuring nutritional status by ARS.

Senator DOLE. I understand scientists from the two departments have submitted a report which evaluates the advantages and disadvantages of combining the two basic surveys of the monitoring system:

USDA's Nationwide Food Consumption Survey (NFCS).

DHHS' National Health and Nutrition Examination Survey (NHANES).

The scientists concluded that the two surveys could not be combined into one; however, the scientists did feel that there were several ways in which the two surveys should be coordinated better.

Mr. BODE. That is correct, Senator; the report to which you refer has been submitted to several Congressional committees. The statisticians were experts in surveys design from agencies of each Department that are not directly connected with the NFCS or NHANES. They concluded that:

"It is impractical to combine the two surveys in such a way to collect reliable data that will meet the needs of both agencies and the general public. The impediments to a merger are: (1) the excessive burden on respondents, (2) the inability of NHANES to control for seasonal affects, (3) the longer data collection schedule of the NHANES, and (4) the special stratification and allocation of the NHANES sample design. While there might be an initial cost savings by combining the surveys, the loss of information, the inability to make correct inferences with the data and the likelihood of passing damaging false information to the public outweigh any potential cost savings."

Senator DOLE. What is being done about the recommendations of these statisticians to coordinate these two surveys better?

Mr. BODE. With regard to the recommendations of the commmittee, considerable progress is being made. The two survey directors and/or members of their staffs meet practically weekly. As I indicated previously, the Department provided a grant last year for a Data Users Conference for the NFCS. The DHHS has joined in this grant so that the overlap for the two surveys, socio-economic data and individual dietary data, can be considered by users simultaneously. In addition, it is my understanding that DHHS is planning to use the same nutrient data file as the NFCS, that developed the Nutrient Data Bank of HNIS; as well as the standards tc be used in the evaluation of dietary intake that are being developed for the Department under another grant to the Academy. Discussions are continuing on developing common definitions, terms, sex-age grouping, tabulation plans, etc., which would facilitate comparability of the output from the two surveys. Decision in these areas cannot be finalized, however, until we have the report from the Data Users Conference.

A final area of coordination is that the Department, insofar as possible within funding limitations, will schedule and design its continuing Individual Intake Survey to meet the next NHANES schedule and design. We believe that this coordination will enable each survey to use a more efficient design to meet their goals while introducing direct comparability of information from the two surveys.

Senator DOLE. For the record: Has the Evaluation Committee met yet? If not, why not? What is the makeup of the committee? When will it meet? What charge has been given to the committee?

Is the make/expertise of this committee such that it will give us a better handle on the nutritional status of the low-income populations of the Nation?

They are supposed to be evaluating the present system. Will this evaluation shed any light on how we might better asses the nutritional status of all Americans, including those of low income?

What safeguard have you built into this committee structure and charge to assure this?

Mr. BODE. The Joint Nutrition Monitoring Evaluation Committee (JNMEC) has not yet met. This is due to unforeseen delays in the development and approval of the charter for the Committee. Until the charter is approved by GSA and published in the Federal Register, the Committee cannot be named. Although we have had preliminary discussion with potential members of the Committee, it would be premature to name them at this time. We expect to hold the first meeting as soon as it can be arranged after receiving approval of the charter.

The charge to the Committee is to "evaluate the findings of the Nationwide Food Consumption Survey (NFCS), the National Health and Nutrition Examination Survey (NHANES), and other Federal nutrition monitoring efforts and develop a report to Congress on the nutrition status of the U.S. population. It will also assess the current state of knowledge about nutrition monitoring and identify deficiencies and special areas of need in the system."

Potential Committee members have a wealth of experience. Not only are they thoroughly familiar with both the NFCS and the NHANES, they have considerable knowledge about the other aspects of the monitoring system. Two of the potential Committee members are on the Food and Nutrition Board committee that is handling the two grants that the Department has provided to the National Academy of Sciences (NAS); i.e., the Data Users Conference and Developing Criteria for Evaluating Intakes of Individuals from Surveys. In addition, several members have done extensive analyses of the data from both NFCS and NHANES. We are confident that this expert Committee will facilitate improvement of all aspects of the Monitoring System, including a better handle on assessing the nutritional status of the low-income population, and that of all Americans, as well.

Safeguards to assure this improved assessment fall into two areas. First is the careful selection of the Committee. Second is the extensive methodological studies that the Department has undertaken the past decade, all of which will be made available to the Committee. These results, plus those from the two grants to the NAS, will provide not only information as to the latest state of the art but also a consensus of what data are needed to correctly assess the nutritional status of Americans.

Senator DOLE. What is the progress on the Monitoring System's data users conference? What will be the costs? To the USDA? To DHHS?

Mr. BODE. The Department provided a grant to the Food and Nutrition Board, National Academy of Sciences (FNB, NAS) last year to hold the Data Users Conference. The DHHS has recently joined us so that the FNB will consider not only the

NFCS but NHANES as well. Department staff have met with FNB staff as well as the FNB committee handling this grant a number of times. A full FNB committee meeting on this grant will be held on April 20, at which both Department and DHHS staff will attend. A workshop is scheduled for late June, with an open symposium scheduled for this fall. The cost to the Department for this grant is $169,900, and the cost to DHHS is $87,100.

Senator DOLE. Certain field tests on testing methods were to be done in preparation for the comprehensive system. What is the status of both these field tests—one aimed at collecting dietary data and the other for determining household food losses?

Mr. BODE. The Department now has two methodological studies aimed at collecting dietary data. The first is a study in which nine alternative methods are being tested in the collection of dietary data for up to 12 days over a year's period of time. This study is now in its fifth month of data collection, and early indications are that several methods show great promise. The second methodological study is the Pilot Low-Income Survey that was specified in the Agricultural and Food Act of 1981, Section 1329, section 17(c) of the Food Stamp Act of 1977. This study will test three alternative methods, those that show promise in the pretesting of the study mentioned previously, in collecting up to 12 days' intake data over a year's period of time. Final approval has just been obtained from the Office of Management and Budget; and after field-testing, data collection will be initiated in the next several months.

With respect to the study on household food losses, the preliminary final report has just recently been received. It is now under review, and the principal investigators are scheduled to come to discuss their report with us in May. We hope to have a limited field test of the "best" one or two methods developed in 1985 so that this could be included as a part of the planned 1987 Household survey.

Senator DOLE. How will the progress report due to Congress in November 1984 be completed if 1) certain activities required for its preparation have not yet occurred on schedule and 2) what can we expect the report will tell us about the status of the low-income populations?

Mr. BODE. As I stated earlier, we have run into delays in the development and approval of the charter for the Joint Nutrition Monitoring Evaluation Committee (JNMEC). Although behind schedule, we fully anticipate that we will be able to submit a report to Congress next year.

With repect to Departmental activities, the report will not be able to provide any additional information about the status of the low-income population than that provided by the 1977-78 NFCS and the 1977-78 and 1979-80 low-income surveys. We should, however, have by that time a good indication of our ability to measure on a longitudinal basis the individual intake of the low-income population from the pilot low-income study I mentioned previously.

STATEMENT OF HON. JOHN C. DANFORTH, A U.S. SENATOR FROM MISSOURI

Senator DANFORTH. Mr. Chairman, thank you very much. I appreciate your expertise and your interest in this subject, as well as your holding this hearing and your invitation to me to be a witness.

Mr. Chairman, I became interested in the whole question of hunger and nutrition as a result of my trip to Cambodia in 1979 and seeing widespread starvation at that time. Since then it has occurred to me that at least I, in my job in the Senate, should be spending more time in this area, but that if we are going to address the problem of hunger, it is a worldwide phenomenon. It is important also to look at the situation here in the United States.

Therefore, last month I spent some time in St. Louis and Kansas City, also time in St. Joseph and Springfield, but primarily St. Louis and Kansas City, looking into the situation as it exists in our State. I do not find that my experience made me into an instant expert, but I will claim that it raised some instant concerns in my mind about the present state of affairs.

Just to give you some examples of what I learned visiting with the staff of the Children's Mercy Hospital in Kansas City and talking to a nutritionist on that staff, it was her view that there is a problem with respect to school kids and the adequacy of their diet.

She said that there is no real statistical base on which to make that statement except her own analysis. She made her own analysis of the health records of elementary schools in the inner city in Kansas City, and found that of 85 records which she checked, there were 11 cases in the ages of grades K through 5 where the kids were not having normal weight gain, and she attributed that to the fact that their diet was insufficient.

In St. Louis, I am told that one-third of the elderly in St. Louis need supplemental nutritional assistance. I am not sure how many of that one-third are actually receiving assistance.

With respect to the WIC program in Missouri, I am told that only about one-third of those who should be eligible for the program are actually participating because of lack of funds for the program.

In the food stamp program, from everyone with whom I spoke—people who were involved in the administration of the program and people who were recipients of it, it appears that there are long delays, sometimes very long delays, between the time of making application for food stamps and the time of qualifying for the program.

It is also a commonly held view that by the end of the month, food stamp recipients are running out of food stamps, and therefore, there is a particular claim during the last part of months on private sources of food. There are a number of food pantries and soup kitchens that people can go to, but what happens in the last week or so of the month, in particular, is people are scrambling from location to location, able to pick up a bag of food here and a little food there, and really trying to make do at the end of the month.

One thing struck me in particular during this trip in the discussions I had with people who are really in desperate condition in our country. I attempted to talk to them about food, and it was remarkable that many times those who were in very bad shape economically did not really want to talk about food. They wanted to talk about jobs. Their position was if they had jobs, they could make money; and if they had money, they could buy food, and that the problem would take care of itself.

And they wanted very much to turn the discussion to jobs and the prospect of getting jobs. I think that for those of us who are fortunate enough not to have necessity breathing down our necks all the time, sometimes we engage in the luxury of viewing those who really do not know where their next meal is coming from as being people who do that out of life style or out of choice, that they really do not want to work.

My impression from talking to people who are really experiencing this problem is that the contrary is true. They very much want jobs. They want the security that comes with jobs, and they are making do in the meantime.

It is clear to me that there are just a lot of people who have fallen between the cracks for one reason or another. For example,

in Kansas City, I spoke with a young man and his wife. He is 25; she is 24; she is pregnant. They have no children. They do not qualify for AFDC. He, to get work, goes to these places where they hire you out for the day. Sometimes somebody comes and hires him; sometimes nobody does. Sometimes somebody comes late in the day. He figures he can make about $40 a week doing that, maybe.

He has no place to live. He scrambles around every day trying to find a place to live. I asked about whether they participated in WIC or food stamps, and he said, "Where would I take the food once I got it?"

So there are people out there who just do not have homes and do not have any clear idea what they are going to do next and where they are going to be next, and it seems to me that even if we get the economy moving in the right direction, which we all hope for, it is going to be very difficult for a substantial number of people for a very long period of time—people who are really not trained for the kinds of jobs that are going to be available or who are not going to be picked up on any kind of foreseeable economic recovery.

Therefore, it seems to me that we do have an obligation, at the very least, to make sure that these people stay alive and that they do have an adequate diet. So my hope is that not only would we not make further cuts in food-related programs, but that we might consider actually some kind of an increase in what these people are receiving.

Just one other point, going back to the origin of my concern, namely the situation in Cambodia back in 1979. It was remarkable to me that in talking to both providers of food and consumers of food programs that there is a tremendous hostility out there to any form of foreign aid at all. There is a hostility to helping people, whether they be in Cambodia or Africa or Bangladesh or wherever, and people express the concern that charity should begin at home.

I think that if we believe that we have a responsibility to participate in the world around us and that America does have a mission to help feed the world, not only as a matter of principle, but because it is in our own interests to help do so, and because it is in the interest of our agricultural community to help do so, then I think that in order to get to that point of meeting our obligations to the rest of the world, we have to show our own people that we are meeting our obligations to them, and that is one of the concerns I have about further cuts in these programs.

I do have a statement which is written, which I would like to submit.[1]

Senator DOLE. Thank you very much, Senator.

If there are any specific areas that you would like to call to the Department's attention—anything you ran across in St. Louis, Kansas City, St. Joseph, or Springfield? I am certain that they would be happy to respond.

Senator DANFORTH. All right. I think the one recurring thing that I heard about was the delay between application for the program. As I understand it, there is a recertification process where periodically people have to reapply to participate, and in that reap-

[1] See p. 133 for the prepared statement of Senator Danforth.

plication there is also a considerable delay so that there are periods of time when people are just not receiving food in the program.

[The following information was subsequently received for the record:]

This happens, but it does not mean that food stamp benefits are inadequate. Benefit levels in the Food Stamp Program are linked to the cost of the Thrifty Food Plan, a diet consisting of economical, nutritious food.

Households with zero net income receive full benefits; households with incomes that permit them to meet some of their own food needs receive less than maximum benefits. Although careful and economic shopping is required by recipients, the Food Stamp Program ensures that all Americans have access to an adequate diet through a combination of food stamps and/or their own resources.

Since the Food Stamp Program is generally available to all low-income Americans, it is to be expected that food banks would see many food stamp recipients among those seeking their help. Their need occurs for several reasons: Many food stamp recipients receive less than full benefits. They may seek additional assistance if they do not feel they can use available cash for food as intended by the Food Stamp Program; Food stamp recipients, like other Americans, may find themselves in emergency need of extra food for any number of reasons; and some food stamp recipients may have chronic budgeting problems.

In all these situations, we believe increasing food stamp benefits is not an appropriate solution. The individualized response of local food programs is much more appropriate, and we applaud the valuable assistance food banks provide these recipients, those awaiting receipt of food stamps, and other Americans.

In summary, assessing the effectiveness of the Food Stamp Program, it is important to note that since 65 percent of those eligible for food stamps receive them, it is likely that food stamp recipients will be among all low-income persons seeking assistance from food banks. However, this does not mean that a high percent of food stamp recipients receive additional food assistance through food banks. Information on the exact percentage is not available.

Mr. BODE. Senator, we would be very happy to look into that. The program regulations, the rules that the States operate under do provide for timely notice to the recipient household so there should not be any interruption in service as long as they remain eligible.

Additionally, we have an expedited service provision in the food stamp program, and those households in the sort of situation you are talking about should be getting food stamps within 5 days.

Senator DANFORTH. I think that there is some slip.

Mr. BODE. We will check to be sure there is no slip, sir.

Senator DOLE. Why don't we check with your staff, John?

Mr. BODE. Yes, sir.

[The following information was subsequently received by the committee:]

Hon. JOHN C. DANFORTH,
U.S. Senate,
Washington, D.C.

DEAR SENATOR DANFORTH: During the April 6 testimony before the Senate Agriculture Subcommittee on Nutrition, you indicated a concern about delays in the processing of food stamp applications and certifying applicants in Kansas City and St. Louis, Missouri.

The Mountain Plains Regions Office of the Food and Nutrition Service has just completed a Management Evaluation Review in Jackson County (Kansas City) during the week of April 11, 1983. The Region has verbally advised us of the following:

There are no delays in processing Public Assistance/Food Stamp (PA/FS) cases or expedited service cases.

There is a backlog of non-assistance cases. As of April 8, there were about 300 delinquent applications pending over 30 days.

County has assigned four workers to full time processing of these delinquent applications.

County has requested approval to grant overtime pay to 25 workers to clean up the backlog and is awaiting State agency approval.

County approves 80 to 85 percent of new applications within 30 days.

Backlog caused by big increase in workload during December, January, February and March. Average number of actions per month during this period was about 6,000 (including new applications, recertifications and reported changes). Slight decrease occurred during February and March.

In St. Louis, the State agency is also working closely with the local food stamp officials on the backlog and the Regional Office will continue to closely monitor both situations. Should you need additional information, please let us know.

The above information has already been relayed to David Zorinsky of your staff by telephone.

Sincerely.

———— ————.

Senator DOLE. Thank you very much.

Senator DANFORTH. Thank you very much.

Senator DOLE. We do appreciate your participation.

I think it might be helpful, rather than to keep the Department witnesses here longer, to go ahead and hear the next panel. I do not know what your time schedule here is, but will there be somebody from the Department here all day long?

Mr. BODE. We will be pleased to have someone here, sir.

Senator DOLE. Maybe after we have had an opportunity to hear the next panel, we may want to make some comment for the record or supply something for the record either rebutting or agreeing with some of the statements made.

Mr. BODE. We would appreciate the opportunity to provide comments for the record addressing any questions.

Senator DOLE. Thank you very much.

We now have a panel consisting of Dr. Larry Brown, director of the community health improvement program, Harvard School of Public Health in Boston; Dr. Charles E. Butterworth, professor and chairman of the Department of Nutrition Sciences, University of Alabama; Dr. Hamish Munro, director of the USDA Human Nutrition Research Center on Aging, Tufts University; Dr. David Rush, professor of pediatrics, obstetrics, and gynecology, Albert Einstein College of Medicine in New York; and Margaret Bogle, pediatric nutrition consultant, Department of Health, Little Rock, Ark.

Dr. Rush here?

[No response.]

Senator DOLE. We have two witnesses missing. Why don't we go ahead and proceed, and the others can put their statements in the record.

STATEMENT OF DR. LARRY BROWN, DIRECTOR, COMMUNITY HEALTH IMPROVEMENT PROGRAM, HARVARD SCHOOL OF PUBLIC HEALTH, BOSTON, MASS.

Dr. BROWN. Senator, thank you very much for the opportunity to appear here.[1]

I am on the faculty at the Harvard School of Public Health and direct the school's community health improvement program, which is designed primarily to work with low-income communities in and around the Boston area, and we do so cooperatively with hospitals and neighborhood health centers up there in that area.

[1] See p. 158 for the prepared statement of Dr. Brown.

Our research interest in nutrition actually got started and was generated by Federal policy and program changes under OBRA, the Omnibus Budget and Reconciliation Act. Following that act, in our State more than 40 percent of the Massachusetts school children were dropped from the school lunch and breakfast programs in a period of about 14 or 15 months, and nearly 20 percent of the people receiving food stamps and over 20 percent of the children receiving AFDC were eliminated from participation in those programs.

Our WIC program remained relatively stable, but still serves less than 19 percent of the eligible population there.

Altogether 364,000 people in our State, mainly children, lost the ability to participate in these nutrition programs that I just mentioned. These are the so-called new poor, people who had been living on the margins and then who lost support from these programs, and we were interested to learn in our research efforts what happened to them as a result.

So we focused our attention on hunger and on health issues, documenting perhaps for the first time since the Great Depression the number of people being fed by soup kitchens in one major urban area.

The emergency food network that exists up in the Boston area is comprised mainly of soup kitchens which provide meals and food pantries which provide bags of groceries. A lot of them are serviced by the Boston Food Bank, which, as you know, is one of 40 food banks around the Nation. The one in Boston distributed 680,000 pounds of food last year, and projects distributing 1.5 million pounds of food this year.

In our research, we monitor 172 food pantries and 35 soup kitchens in the Greater Boston area. So I am anxious to share several of our research findings with you to this point in time.

Our first finding, depicted on the chart here, has to do with the numbers of people being fed in the emergency programs. News accounts estimated 3,000 to 4,000 people were being fed. We found that for January alone a minimum of 20,000 men, women, and children were being fed in the soup kitchens and by food pantries. This is not an estimate or projection. It is an actual count.

A second finding is that during this 1-month period individuals and families consumed nearly 200,000 meals provided by these soup kitchens and pantries.

Third, if the current levels hold, we project that there will be nearly 2,500,000 meals provided to hungry people in 12 months among these pantries and soup kitchens that we are monitoring.

But, fourth, I should add, the current levels are not holding. The demand for emergency food in the Boston area seems to be growing at a fairly steady rate. As you can see here, we have 1981, which is a projection. These others are all actual tallies. So from this month to this month [indicating] there was a 20-percent increase and through January 1983, for this month, there was approximately a 14-percent increase over the previous month, a 34-percent increase in the period of time between November and January.

Senator DOLE. Do you have copies or is that in your statement?

Dr. BROWN. I do, Senator. They are attached to the statement, the graphs are.

Senator DOLE. All right.

Dr. BROWN. So I will not belabor that.

We are finding other things as we look at the phenomenon, which I find rich in policy and programatic implications. Our fifth finding is that of the over 200 emergency food centers that we monitor, the majority started after OBRA. Now, our data is not sufficient, frankly, to draw a cause and effect relationship between OBRA cutbacks and the rise of the emergency food pantries, but their temporal relationship certainly in my mind places the burden on those who say that those are unrelated phenomena or events.

Our sixth finding is that requests for help, as Senator Danforth mentioned earlier, and we are finding the same thing, requests for help at the emergency food centers go up dramatically at the end of the month, attributable largely to food stamp allotments inadequate to feed children for an entire 30-day period.

Two other findings: One is that the emergency food network, while I think all of us agree is highly admirable, is temporary and patchwork at best. Soup kitchens are simply unable to keep up with the need, and many people go unserved. Pantries, we found, oftentimes are not open and serve but one bag of groceries to a family in a month. Not all of them, but most of them have that limitation in our area.

Food served often is nutritionally inadequate. The Boston Food Bank, for example, gets a lot of jelly and marshmallow fluff, which obviously fills a child's stomach but does not adequately nourish hers. And the emergency network often is a maze of dead ends to parents who have to transport children around town in search of 21 meals in a given week.

Our last finding, and perhaps most significant, is that churches and social service agencies report to us that most people who are hungry do not enter the food network, the emergency food network either due to lack of pride or lack of knowledge of having been turned away. They suffer their lot in the privacy of their own homes. Extra water may be added to the baby's bottle of milk or extra beans to the pot, so that the quantity goes up, but the nutritional value certainly does not.

I do not know, and I doubt if anyone has research data to show, how many people fall into this latter category, but what we do know and can say is that on the basis of our data, in 1 year some 2.5 million meals will be served to hungry people in Boston, representing at least 2.5 million times that some Americans in one urban area alone went to their cupboards and found them bare.

Finally, let me address what we are seeing in the area of health effects, regarding the health effects of hunger. Our knowledge unfortunately of the impact of the health effects is less than the knowledge of its existence. Clinical evidence, as you well know, takes a long time to reveal itself, but small clinical studies along with reports from the medical community provide reason for my colleagues and I to have some concern.

A medical team at Boston City Hospital, for example, took weight and height measurements for all 400 children recently coming into their pediatric walk-in clinic. Outcomes for each of these children were plotted on graphs or charts developed by the National Center for Health Statistics. These physicians were par-

ticularly interested in determining the evidence of inadequate nutrition in children, age 5 and under, because, as you know, these 5 years represent the neonatal period of most rapid brain development and, therefore, are a time when the brain is uniquely susceptible to irreversible damage from nutritional deprivation.

What these researchers found, in fact, we believe is very significant. In any given population you would normally expect by definition to find 5 percent of the children in the lowest fifth percentile, in the fifth percentile for growth. This was weight for height and weight for age. In fact, they observed 14.4 percent of their children who were in this category, or nearly three times the rate that we would expect.

Another 10 percent of the kids, which are not shown on this graph, Senator Dole, are at the other end of the continuum, at the 95th percentile and above, and the obesity of many of these children as well, these pediatric patients 5 years of age and under, really reflects improper nutrition often associated, although not exclusively, with poverty. That is, high carbohydrate, low protein diets which fill the stomach without properly nourishing the body.

I want to add that certainly the children suffering from growth failure here are not suffering from something as severe as kwashiorkor, the nutritional disease where we see children with distended bellies, often in Third World nations. Rather, they suffer from what the World Health Organization terms "silent undernutrition." It is a condition that is less apparent on casual observation.

The 30-pound child, for example, who is 10 pounds underweight, or the child who is not underweight, but who has not grown for a fixed period of time are two possible victims of this condition, and run a high risk of long-term impairment at a time of rapid brain development.

A child's brain is much like a construction site. You have materials and the work crew, and if the bricks are not delivered while the work crew is on the job, they will not become part of the building. Similarly, the brain of a young child has developmental or biosynthetic abilities that it will never have again, and if adequate nutrition is unavailable at that time, the likelihood of long-term impairment is significantly increased. In other words, a child's brain cannot wait for economic upswings.

The Boston City Hospital data does not permit generalization to the larger population. It's troublesome data. Growth failure or malnutrition was found among low-income children at about two to three times the expected rates, and it was not hard to find. This is what I find worrisome.

What worries me most, Senator, is that the early clinical warning signs of damage to health are showing up under current spending levels, and we are identifying serious consequences at these rates. If we increased nutritional programs probably these early clinical signs can be turned around. If not, I suspect that the probability is that next year I will be able to present you further evidence of ill health which invariably occurs when nutrition is not adequate.

Thank you.

Senator DOLE. Well, I think that may be partly true, but maybe it is the way we have the priorities arranged for the money we have. That is why I think it would be helpful if you would take a look at how we are spending the limited dollars we have. Obviously, if we had enough money to take care of everyone, it would not be a problem, but I think there are ways we can simplify and standardize some of the programs, reduce some of the errors, and provide additional money for the very things you mentioned. I think that is the other side.

It is not just a matter of increasing the spending levels. It is how to spend the funds we have available most effectively—that is the problem we have. It is not that we are not sympathetic, but, realizing we don't live in a perfect world, we want to make certain that the money we spend gets to the people that you have described. I assume some of what you are talking about may be recession related, as well as——

Dr. BROWN. No question.

Senator DOLE. And probably a great deal of it is. All right. Why don't we come back to this issue.

[Questions submitted by Senator Helms to Dr. Brown and answers thereto:]

DEAR SENATOR HELMS: Enclosed is the additional information which you requested on July 14, following my testimony before the Nutrition Subcommittee in the spring.

I shall be pleased to answer any further questions you may have as well.

Before responding to each question you raised, I want to indicate that since April colleagues in the medical community here have continued to see what they consider to be an alarming rise in hunger and adverse health outcomes, particularly among infants, children and pregnant women. This is taking place in Massachusetts which, as you know, is an industrial state with comparatively low unemployment. Presumably such problems may be even greater in states without such an industrial base where unemployment is higher.

Should you share concern about this possible problem, I offer to convene a team of physicians from Harvard to join physicians from North Carolina to see if in fact similar problems are taking place in your state. Not only could a joint enedeavor prove valuable, but I am certain you would welcome increased knowledge about a possibly serious problem among your constituents. I would appreciate hearing at your earliest convenience whether you would welcome such a cooperative endeavor.

Below, I shall respond to your questions in the order you asked them in your letter.

Question 1. What information do you have to support the statement that the WIC program in (Boston or Massachusetts) is serving "under 19 percent of the eligible population"? How have you defined "eligibility"?

Answer. Data to support my testimony that "under 19 percent of the eligible population" for the Women and Infant Children (WIC) nutrition program actually get served, comes directly from records maintained by the USDA and the Massachusetts Department of Public Health, Division of Family Health Services. In fiscal year 1981, Massachusetts WIC participation was 36,345; in fiscal year 1982, this figure dropped to 31,957. Presently, the level is just under 50,000, the increase being due to the "Jobs Bill" funding for WIC.

Even this recent increase means that less than 25 percent of the pregnant and lactating mothers and infant children who are eligible for the program actually receive it.

In response to your question about how I defined eligibility for WIC, such standards are defined by federal law and regulation, and are based on low income and nutritional risk. Each state follows these federedal standards in conducting a statewide needs assessment to determine the number of mothers and infants who comprise the eligible population.

Due to inadequate federal funding, most states do not come close to serving the eligible WIC population. As you know, the Reagan Administration each year has

proposed cuts in the number of pregnant women and children who are served, but the proposed cuts have not been accepted by Congress.

Question 2. The information which you cited on school lunch and breakfast participation appears somewhat dated. Do you have any more recent data on what is the level of participation. What was the school enrollment in Massachusetts for the comparable periods which you cited? Additionally, do you have specific figures for food stamp participation which corresponds to your claim that 20 percent of all families were eliminated from participation?

Answer. We are presently analyzing school breakfast and school lunch participation for each New England state to determine whether the precipitous decline in participation following OBRA has changed. In Massachusetts, an effort was made by state and local officials to re-enroll needy children who had been knocked from participation in these nutrition programs as a result of OBRA. Analysis of the New England state data should be available within the next two months.

Massachusetts, like many states, has experienced some decline in public school enrollment (1981/82: 950,593 students; 1982/83: 912,183). Assessment of enrollment for appropriate periods of time, however, indicates that federal budget cuts, and not declining attendance, account for the substantial decline in the numbers of children who get a nutritious meal at school.

You ask for specific figures corresponding to my testimony that nearly 20 percent of individuals and families receiving food stamps in Massachusetts were dropped from this program. That data is in my written testimony to which you may refer: the number of food stamp recipients dropped from 487,000 to 395,000 in nine months from January, 1982, and September, 1982.

More recent data from the USDA and the Massachusetts Department of Public Welfare indicates that this number declined still further; as of January, 1983, the figure was down to nearly 370,000. This indicates that nearly 25 percent of the number of poor families and individuals receiving food stamp assistance in January, 1982, had been terminated by January, 1983. During this same time period, unemployment in the nation increased sharply, and less so in Massachusetts which nevertheless experienced an increase in its unemployment rates.

Question 3. How do you define the terms "hunger", "malnutrition" and "inadequate diet" and what, if anything, distinguishes one from the other?

Answer. "Hunger" is defined as a condition or state wherein people are forced to go without food and experience weakness, lethargy or discomfort as a result.

"Malnutrition" is the state of being deficient in essential nutrients, reflecting a cumulative deficiency in protein and caloric intake (see F. E. Viteri, "Primary Protein-Calorie Malnutrition," Textbook of Pediatric Nutrition, P. 190, New York: Raven Press 1981.

Question 4. I don't follow your logic in your fifth finding—that there is some sort of "temporal relationship" which clearly places the burden on those who wish to argue that they (establishment of emergency food centers and the Omnibus Budget Reconciliation Act of 1981) are unrelated". Do you believe there is a relationship or not?

Answer. You indicate that you do not follow the logic of our fifth finding presented in my testimony which read as follows:

"Of the over-200 emergency food centers, the majority started after OBRA. Our data is not sufficient to draw a cause-and-effect relationship between OBRA cutbacks and the rise of emergency food programs. But their temporal relationship clearly places the burden on those who wish to argue that they are unrelated."

In our research, we did not ask families coming to soup kitchens and food pantries whether they do so because of OBRA-mandated cuts in nutrition programs, which otherwise would have enabled them to eat. This is why we cannot say conclusively that there is a cause-and-effect relationship between the two. But the fact that the Reagan Administration initiated the most massive cuts in nutrition programs in the history of our country, and the fact that the number of families coming to soup kitchens and food pantries dramatically increased following those cuts, indicates that they are temporally related.

Our interviews with some families, and with a much larger number of emergency food service providers in the religious and social service communities, indicate that it was the families who had been living on the margin of poverty who were forced to resort to food lines when they were cut from nutrition programs such as food stamps, school lunch, or AFDC assistance.

While it is theoretically conceivable that some factor(s) other than the OBRA cuts forced these families into the soup lines, their temporal relationship and common sense would indicate that the cuts caused these Americans to resort to this means of

feeding their families. Clearly the burden of proof now rests on those who would deny such a relationship.

It is unfortunate that proponents of the cuts in nutrition programs neither had the data base nor established one to determine the impact of denying nutrition to so many Americans.

Question 5. Have you done any research to determine how many individuals served by emergency food programs also receive benefits under various Federal programs, such as food stamps, WIC, and so forth? Do you have any information on the income status of those individuals served by these programs?

Answer. Our research is not designed to ask how many individuals served by emergency food programs also receive federal food program benefits. Such research would be intrusive and would raise serious question of privacy violations. We would not think it proper to ask personal questions of wealthy farmers who receive government crop subsidies, or businessmen who receive government subsidies through tax writeoffs. Similarly, we would think it improper to subject poor Americans to intrusive questions because they are poor and must rely on nutrition-assistance programs. Both groups of citizens are subjected to government eligibility criteria, probably more rigorous for the poor, and any further intrusion would seem unwarranted.

In response to your question, we do have some information on the income status of individuals served by emergency food programs. This information comes from interviews with members of the clergy and social service agency directors who operate the food programs which we monitor on a monthly basis.

You will not be surprised to learn that families who eat at soup kitchens are poor. They seem to be comprised of Americans who have two generally distinct life experiences. One group has lived in poverty for a long time. They are the chronically unemployed older man, the employed middle-age woman whose income is extremely low and sporadic, and the physically or mentally handicapped person who has no other means of support.

The other group is the "new poor"— usually the American family who has never been in poverty before. Some have always been on the border—the working poor who were kept out of poverty by their low-income job and government programs such as school-lunch and food stamps. Others are people who were once middle-class. Now, both these groups form the ranks of the "new poor" due to the twin perils of an economic recession and unemployment, and massive federal cuts in social and nutrition programs.

I am certain you have seen these American families in soup kitchens and at food pantries in North Carolina, just as I have seen them here in Massachusetts and other states in our nation. Not only is their plight a national tragedy, but they suffer the double indignity of being poor and having people call into question their poverty. I would like to believe that any compassionate American who has seen mothers and fathers have to plan how they are going to get soup from church basements and tinned-goods from panties twenty-one times a week for their children would quickly acknowledge that this phenomenon is not the latest fad in our nation.

It is an awful, dehumanizing existence. It breaks up families and destroys lives. I have seen cases of formerly stable, middle-class families break apart as first unemployment comes, then unemployment benefits run out, the home is sold, rent cannot be paid so family members split up, health is affected often as a result of stress, and deterioration takes its toll on all members. These families and individuals, when they do appear at emergency food programs, do so not because they choose to but because, for many of them, it is the last resort.

Question 6. Do you have any specific data to support your sixth finding that "requests for help at the emergency food centers increases dramatically toward the end of each month"? Also what evidence do you have to support your contention that the cause for such occurrences, if they exist, is "attributable to food stamp allotments inadequate to feed children for an entire month"? Have you assessed other possible causes/such as uneconomic food selections, or poor budgetary or meal planning for the month?

Answer. The basis for my statement that "requests for help at the emergency food centers increase dramatically toward the end of each month" is our extensive interviews with the over-200 soup kitchens and food pantry directors whose activity we monitor on a monthly basis. Moreover, in both these interviews and in testimony before the Citizens' Commission on Hunger in New England (comprised of physicians, religious leaders and university heads), it is reported over and over that food stamp allotments are not adequate to feed children for an entire month. The allotments used to run out toward the last week of each month. Now emergency food

providers see more families coming for assistance shortly after the middle of each month due to inadequacies of the food stamp supplements.

I am glad that you asked about other possible causes for this phenomenon, such as "uneconomic food selections, or poor budgetary or meal planning." Some people apparently hold this view—that poor people are poor or do not have enough to eat because of some inherent faults—and it is important that it be addressed.

Quite simply, no reason exists to believe that poor or hungry people are any less wise in their buying habits than are other Americans. While some citizens in any income bracket may make unwise choices, no evidence indicates that this is a reason for poverty or hunger. To the contrary, people who work with the poor frequently point out what wise shoppers they are, purchasing those inexpensive items which are most nutritious. A recent USDA study (conducted by Betty Peterkin and Mary Y. Hama of the USDA, Consumer Nutrition Division), reported in "Family Economics Review," shows that low-income people purchase more nutrition with their food dollar than do higher income groups. Ironically, many people who marvel about days past when their mothers or grandmothers stretched the food dollar by such wisdom fail to draw the conclusion that poor people today have every incentive to do the same.

Another point lost on those who do not understand this issue is that many people who are poor and hungry today were not so yesterday. They simply lost their jobs, became widowed or incapacitated, or were cut off income and nutritional assistance programs which kept them out of poverty. Before they were poor, no one accused them of "poor budgetary or meal planning," and they probably didn't suddenly become such poor planners that they fell into poverty. If they were able to cope before, and then lost their income or suffered cuts in their food stamp allotment, and cannot cope now, we probably should not search for reasons within them for this predicament. To do so does not reflect the compassion that a government should have toward its people, but reveals a callousness and meanness that is inappropriate and unwarranted.

Question 7. What evidence from churches and social service agencies do you have that "most people who are hungry do not enter the emergency food network"? Is your assumption (or theirs) that they are not being served by other sources—such as food stamps?

Answer. The statement that "most people who are hungry do not enter the emergency food network" is based on our contacts and interviews with emergency food programs run by churches and social service agencies. Priests and ministers, for example, often point out that they have not seen such poverty and hunger among their parishes for years. Often they indicate that through their knowledge of the families, including visits to their homes which provides intimate understanding of their situations, they realize that far more families suffer hunger or inadequate nutrition in the privacy of their homes rather than suffer the humiliation of getting a bag of groceries in the rectory office.

It is clear, in response to your question, that some of these people must be receiving help from other sources such as the food stamps you suggest. Others, of course, do not get such assistance. But whatever the individual case may be, ministers and others familiar with the condition of many American families report that they are not only poor and hungry, but do not request help from churches and social service agencies. They suffer at home, quietly and alone.

Question 8. You have made some rather serious charges, which have been widely reported, regarding important issues of infant birth, health, and mortality. Do you have any specific documentation or statistics to support the following statements contained in your statement:

The number of pregnant women coming to hospitals for delivery with no medical care during pregnancy reportedly is inceasing.

Children often are underweight.

More infants and children reportedly failing to thrive.

Answer. You requested elaboration on several statements contained in my written Senate testimony:

We are able to determine the number of pregnant women coming to hospitals for delivery with no prior prenatal care through vital statistics records. All birth certificates in Massachusetts have the number of prenatal visits and the trimester prenatal care began.

The weight of infants at birth is also taken from birth certificates. Weights are standardized according to multi-ethnic norms. Thus, it can easily be determined whether any particular child is underweight at birth (or subsequently), and whether the proportion of underweight infants is increasing or decreasing in a given population. For further documentation on underweight children, please refer to Oatis, et

al., "Nutritional Status of Hospitalized Children," Abstract 563, Pediatric Research, 16 (4) :172A 1983.

Indications that more infants and children are failing to thrive comes from a variety of sources, mostly, as I stated from clinical reports by physicians. The clinical survey about which I reported, conducted at Boston City Hospital, is being corroborated by similar surveys by physicians and researchers in other states. A statewide survey is presently being conducted in Massachusetts.

Question 9. Regarding the work at Boston City Hospital what information do you have about the "representative nature" of the 400 children served by the walk-in clinic? Were the "weight for age, weight for height" measurements correlated based on race or sex? Do the results from the study in any way compare or contrast to previous years—i.e., what is the basis for comparison? How many hospitals are in Boston? What is the normal clientele for the Boston City Hospital?

Answer: The Boston City Hospital study population was a typical low-income, inner-city population, as I indicated in my testimony. The study was not a sample, but included all children entering the pediatric clinic during the study period. Children's Hospital and Boston City Hospital, together, see 85 percent of the pediatric emergency room cases in the City, the latter having 25,000 visits per year.

I should point out, in response to your question about the "representative nature" of this study, that while it was primarily among low-income children, that should be of no significance. We should not accept that it is "normal" for low-income children to fail to thrive (to experience growth failure) because they are poor. Physiologically there is nothing normal about failing to grow for rich children or poor. It is abnormal and undesirable.

You asked if weight and height for age measurements were based on race or sex. Norms for growth are differentiated by sex (which was done in the Boston City Hospital study), not by race. Growth charts are based on multi-ethnic norms recommended by the Center for Disease Control nutritional surveillance study (see Monthly Vital Statistics, 25(3), Supplement: June 12, 1976). These growth charts are distributed by the National Center for Health Statistics.

In asking about race, you may have had in mind that some racial and ethnic groups are generally smaller than others. This factor has no bearing in the Boston City Hospital study because weight-for-height measures were taken. Thus, even if a child from a particular ethnic group would be smaller in height-for-age, he/she should still be within a certain normal weight range for that height.

Finally, as I indicated in my testimony, this particular study is a point-prevalance study. Researchers do not know whether growth failure in this population of children was greater or less than a year ago, although prospective studies are being conducted. But the significance of the Boston City Hospital is that growth failure in young children was found at such a high rate, and found so easily. And these early clinical warnings of damage to their health are showing up under current spending levels while the Administration proposed still further cuts in health and nutrition programs.

Question 10. Is there any significance to the finding that young children did not gain weight during 56- or 90-day periods? I have understood from other authorities that this would not be uncommon, particularly if infants were overweight at birth.

Answer. You ask if it is significant that some infants do not gain weight for a 56- or 90-day period. You further state that some authorities think this is not uncommon, especially if the infants were overweight at birth.

It is basically unheard of, even for a large gestational infant, not to gain weight for 56 days after birth. It is very uncommon in clinical practice, and considered extremely abnormal when it does occur.

We have checked with several experts, all of whom are eager to know the source for your statement. (See S. J. Foman's Infant Nutrition, p. 54, W. B. Saunders, Phila. 1974).

Question 11. Your conclusion seemed to imply some connection between the Boston City Hospital study and "current spending levels" for certain programs, presumably nutrition programs. This connection seemed unrelated to the content of your testimony. Do you see some correlation? If so, what is the basis for comparison with earlier spending levels?

Answer. You are right that I implied some likely connection between the Boston City Hospital Study, documenting growth failure in children, and current spending levels. I did not say that spending cuts directly caused the growth failure, although many clinicians believe this to be the case. What I said is that growth failure is taking place under current spending levels, meaning we are seeing significant growth failure in children at the same time cutting nutrition programs designed for them. Since we know that growth failure often can be prevented by adequate nutri-

tion, it stands to reason that if growth failure is taking place and nutrition programs are being cut further, children certainly will not be placed in less jeopardy. Quite the contrary is likely.

I would think that this fact alone would give pause to those who support cuts in nutrition programs in the face of such need. The question to be asked of proponents of cuts is this: What evidence do you have that they do not jeopardize the health of mothers and infants in this nation?

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I trust that I have been responsive to each of the questions you raised. Please let me know if I can be helpful if there are matters still not clear to you.

Senator DOLE. Dr. Butterworth.

Dr. BUTTERWORTH. Thank you very much.

Senator DOLE. I will just say to all the witnesses, your statements will be made part of the hearing record. If you could sort of summarize the highlights of your testimony, it would be helpful. This would give us time to talk about it.

STATEMENT OF DR. CHARLES E. BUTTERWORTH, JR., PROFESSOR AND CHAIRMAN, DEPARTMENT OF NUTRITION SCIENCES, UNIVERSITY OF ALABAMA, BIRMINGHAM, ALA.

Dr. BUTTERWORTH. Thank you very much, Senator. I am delighted to be here and to see that you are asking physicians and various nutrition scientists, public health experts, and so on, to examine this question.

When I was invited to appear, my initial impulse was to decline because I feel that I have limited data to present on the question, that is, the evaluation of the impact of food aid programs on health during the 1980's. Then I rethought the idea and decided that I might examine what information was available and what needed to be done to improve our data.

First, let me just say that in Alabama the unemployment rate was 16.1 percent in February. We ranked in the top two to three States in the Nation in unemployment during recent months, and we see the same long food lines and the soup kitchens, food stamp lines, and so on.

Unfortunately, we do not have the good, hard, scientific health data that I wish I had to present to you. I was pleased to hear Dr. Brown's solid data presented on his chart. It is the sort of thing I think we need more of, and I would like to address a little bit more about that in summarizing some of the comments that are in my formal statement.[1]

One of the reasons we cannot assess the effectiveness of the food stamp program is that we have very limited baseline data on population groups—on low-income groups. Now, my goal, and I think as you just expressed it, our goal is to get the most health for the food dollar, and when we talk about health, we come into the entire health care delivery system, and I think that that may be one of the areas that needs to be improved.

First of all, in the "Ten-State Survey" and in the HANES I, the data that we do have was based largely on normal volunteers, people who were willing to walk into a center and be examined and have diet histories, and so on, taken. But even the HANES survey

[1] See p. 166 for the prepared statement of Dr. Butterworth.

noted that the sample was probably inadequate, and certainly it did not include sick people, and that is one of the main thrusts of my testimony.

I would like to see more nutrition information on sick people and more evidence to tell us why sick people become sick. I do not think we should attempt to use the techniques of the 1920's to go out and look for the classical vitamin deficiencies and skin lesions and red tongues and such matters when we have space age techniques that we can use for diagnosing illness.

I think unfortunately we are not using those techniques adequately to assess the nutritional status of the population. I think medical diagnoses have been emphasizing primarily the primary diagnosis and not the underlying problems. For example, a hospital chart or a death certificate might say that the patient was ill because of diabetes, but would not reflect the role of the ability to purchase the proper diet or to deviate from a low-salt diet and the effect that this would have on heart failure, heart disease, and so on.

There are a number of examples that I will not trouble you with, but I would like to point out that since we are dealing with the 1980's, we have to think in terms of modern associations. For example, there is an underlying role of nutrition in cancer. For example, low vitamin A intake, and low carotene levels are thought to be associated with an increased risk of several forms of cancer, and if we do not seek that correlation in our nutrition statistics and our health statistics, Congress and you and I will not know where we are making progress in these fields.

There is evidence that high intakes of saturated fat not only cause heart disease, but also are associated with an increased risk of cancer of the colon and cancer of the breast. We know that protein calorie malnutrition is associated with increased risk of infectious disease, pneumonia, and other problems, and if we do not look beyond this final diagnosis into the underlying role of malnutrition, we may not have the information that we need.

In my statement I proposed a very tentative suggestion that could probably be improved upon, but I think if we could get information on nutrition in hospital discharge summaries, in medical insurance claims, and on death certificates, we would begin to accumulate some of the sorts of statistics that we need, and that currently we do not have.

We are trying to improve the overall situation in Birmingham, and if you will forgive me for bragging a moment, we are building a new building that will be a nutrition sciences center. It is being built primarily with funds raised by private donations and gifts from industry, and we think it has a great potential resource to look at some of the areas that need attention during the 1980's.

So, in summary, I would like to recommend that somehow—first of all, I do encourage and commend the food aid programs, and I believe they should continue at least at the present level; I would like to see them monitored better—I think we need much better health statistics in relation to nutrition, and I would like to see if some requirement, and I do not know how this could be achieved, but a requirement for States to monitor the food assistance program and its impact on health.

Of course, I would like to see continued support of various research and education programs in nutrition.

Thank you, Senator.

Senator DOLE. Thank you. We will come back to you.

Ms. Bogle, we will hear you next.

[Questions submitted by Senator Helms to Dr. Butterworth and answer thereto:]

Question 1. How do you define the terms "hunger", "malnutrition" and "inadequate diet" and what, if anything, distinguishes one from another?

Answer. Hunger—I prefer to use this word to describe the familiar sensations one feels due to an empty stomach at the time of an expected meal. It can be placated by food, even if that particular food at that particular time is not a balanced meal. The word, of course, can also mean "to yearn for". I do not consider it a good word to describe the lack of a good diet by a population group. Malnutrition means the state of poor health associated with a poor diet. It usually means undernutrition, for example a lack of food energy, or of vitamins, or of other essential nutrients. It can also mean over-nutrition, as in obesity, or an excessive intake of some dietary component. The effects of malnutrition may not be readily apparent; that is they may not cause obvious disease or debility, but their effects can be detected by special tests and are injurious to health either in the short or long term.

An inadequate diet is any diet that does not provide for the replacement of body nutrients that are lost by metabolism or excretion. All meals do not need to contain all nutrients, since some nutrients can be stored for long periods of time.

Question 2. You seemed to imply that there may be a correlation between what you expect to be a higher infant mortality rate for Alabama during 1982 and malnutrition. Do you have further information on the infant mortality work of Drs. Goldenberg and Hale, which you mentioned in your testimony? Do you have any reason to suspect that any increases are the result of anything other than historic fluctuations? Could you provide, for the record, the annual infant mortality statisitics for Alabama for the past 10–15 years?

Answer. The infant mortality rates (annual deaths per 1,000 live births) for the last 15 years in Alabama are as follows:

1967	26.8
1968	26.8
1969	26.1
1970	24.1
1971	23.5
1972	22.4
1973	22.1
1974	20.7
1975	19.5
1976	20.0
1977	17.0
1978	16.1
1979	14.3
1980	15.1
1981	12.9

The statistics for 1982 are not yet available, but the rate is expected to be above 14. There is really no way of knowing if this is related to the recession, or simply a statistical fluctuation.

Question 3. You suggested that malnutrition be listed on insurance claims and death certificates as a possible cause of hospitalization or death. Do you know any case in Alabama or elsewhere—in which the cause of death was actually malnutrition?

Answer. I am sure that there have been many cases of hospitalization made necessary because of malnutrition, and of course some deaths. In many cases the statistics do not adequately emphasize the importance of the underlying cause, but put all the emphasis on the terminal event. I am aware of a case in which malnutrition (scurvy) was recognized in a hospitalized patient, but was not mentioned on the death certificate.

I am also aware of the following case which is cited primarily for the purpose of giving a specific answer to your last question, "Do you know any case in Alabama or elsewhere—in which the cause of death was actually malnutrition?":

According to my records Mrs. Ellen B. Holley, age 77 years died December 8, 1978 in Jefferson County. The certificate of death (No. 007102) lists the following causes: Immediate cause: (a) Probable Pneumonia due to or as a consequence of: underlying causes: (b) Severe Malnutrition due to or as a consequence of: (c) Chronic brain syndrome.

STATEMENT OF MARGARET BOGLE, PEDIATRIC NUTRITION CONSULTANT, DEPARTMENT OF HEALTH, LITTLE ROCK, ARK.

Ms. BOGLE. Thank you for asking me. I am Margaret Bogle, director of nutrition services for Arkansas Childrens Hospital, in addition to the other assignments which appeared on the agenda.[1]

Arkansas Childrens Hospital is a 145-bed referral teaching hospital, and the only pediatric hospital in the State. Therefore, we serve infants and children from all over the State and, in addition, serve approximately 100,000 yearly through our outpatient clinic visits.

In my position as nutrition director, I get the opportunity to see children and, therefore, families, from all over the State of Arkansas.

Part of our responsibility is to evaluate the nutritional status of patients, as Dr. Butterworth has just alluded to, and then to attempt to supply nutrients for those who are inpatients and sources of nutrients for those who are outpatients that will affect positive changes when poor nutritional status is indicated.

We are able to monitor some of those changes as these children return to our outpatient clinics. The evaluation of nutritional status requires input from physicians. Our hospital is a teaching hospital for the University of Arkansas College of Medicine, Department of Pediatrics. My role in that area is to work cooperatively with these physicians, residents, and medical students, both in formal classes and one on one with individual patients, to effect better nutritional care of the patients that we see.

Since Arkansas is primarily a rural State without health professionals in many areas, the hospital and my department, in particular, work very closely with the Arkansas State Department of Health in referring our patients for nutritional care and monitoring of progress to public health professionals throughout the State.

In many instances, this referral is necessary just to see that formula or food is available to enable families to implement the recommendations that are made by our institution for improving the nutritional status.

We do not have an adequate system, as Dr. Butterworth and others have alluded to, for retrieving data about these patients seen to produce instant statistics for you today. However, the hospital is seeing more families who are unable to pay medical bills, and part of this increase is from families who once had hospital insurance through their companies. Now, as unemployed or the new poor, they have no insurance benefits.

Although unemployment figures for Arkansas as a whole have been only slightly higher than the national rate and are going down, there are many communities where the unemployed are not in the minority, but are the majority.

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[1] See p. 170 for the prepared statement of Ms. Bogle.

For example, when a large wood products company had closed down the whole town, in effect, even people who did not work directly for the company were employed to provide goods and services for those who did. Consequently, they were out of work.

Our social workers at the hospital are seeing more families that have been dropped from AFDC rolls and cannot be added to food stamp rolls. A large majority of individuals in these families are infants and children. Alarmingly, we have seen a significant increase in the number of infants and children admitted to our hospital in the last year for abuse and neglect, which the sociologists and social workers tell us happens during periods of high unemployment, where families are not able to provide basic needs, such as food, for their families.

The nutritionists on our staff, as well as those out in the State, relate example after example of families not having enough food to last through the month, which Senator Danforth alluded to in Missouri. Some do not want to apply for food stamps because they have never had to be on welfare before and they equate that with welfare.

Those receiving food stamps still do not have enough food to go around. The recurring story that we have seen and we hear after admission of an infant to a hospital for failure to thrive from lack of adequate food is this: Yes, we are on WIC and get formula, but it does not last all month. If I dilute according to the directions, there will not be enough. Therefore, I add more water to make it go further.

And in one instance, the 3-year-old in the family who had just been removed from WIC because of improved nutritional status was taking the bottle from the baby because the 3-year-old was still hungry.

What does all of this have to do with the nutritional status of low-income Americans in the 1980's? We are seeing the tip of the iceberg now most likely, with specific individual infants and children being hospitalized after poor nutritional status has compromised them to the point of being more susceptible to disease and infections. This has been adequately documented in this country already.

One of our pediatric faculty in discussing with him my presentation today stressed to me that he was seeing an increased length of stay in hospitals, further increasing costs, of course, for infants and children that were hospitalized with poor nutritional status. Some we keep to feed until a normal rate of gain can be maintained on just adequate food, no drugs and medicines being given, just food.

He pointed out that the real dilemma of seeing some of these same infants after they go home and the rate of gain decreases as a result of inadequate food or perhaps inadequate education at home.

As noted in my written comments, the evaluation of the nutritional status of groups is a complex activity, but some method of monitoring the benefits of nutritional programs should be a part from the beginning. One of the strong points of WIC, I feel, has been that this program was mandated from the very beginning to have monitoring and evaluation of the benefits in a health-oriented system. The whole process of WIC is in the health system. They

have been able to document decreases in low birth weight infants and improved health status of their clients.

This monitoring component, I feel, should be a part of all programs, to determine whether or not they are accomplishing their stated purpose.

In addition, some system of monitoring the nutrition and health status of all Americans should be continued. This would establish baseline data and document what happens when programs are reduced and pinpoint areas where our technical and scientific knowledge needs to be concentrated in the area of nutrition.

The surveys have not been conducted since reduction in funding has been implemented, and some projected cuts in the 1984 budget would further limit the ability of the Human Nutrition Information Service to gather and produce the information needed to insure the effectiveness of nutrition programs.

The private sector and religious organizations are attempting to plug some of the gaps in the food program. I just would like to point out that food assistance programs are not synonymous with nutritional status, and as you and others have pointed out, many of the ones who need it most are not getting it for the improvement of their nutritional status.

In Little Rock, we have a soup kitchen, too. It is called the Little Rock Stew Pot. It is a noon meal feeding program with which you are all familiar. It is showing steady daily increases in participation, and is no longer a source of food for the street men or the winos, but now has families, women, and children, coming for a meal. This story, of course, is repeated nationwide.

These groups, these private sector groups, do not have the technical skill nor scientific knowledge to monitor and evaluate their benefits in terms of improved nutritional status, nor is that their objective. This information is needed now to plan for the health of future generations in our country.

And I would like to reemphasize that in a time of budget and monetary constraints, it is even more important to establish some program priorities.

A clear commitment to human nutrition research and the dissemination of information to assist the public to better understand the complex interrelationship between diet, nutrition and the quality of life must be forthcoming. In summary I will say one thing. We have the technology to disseminate the information. It is interesting to me that when we see patients in the hospital, they have picked up information that they were wanting to hear. I will relate just one that is related to nutrition. The only incident of protein deficiency that I have seen in a young child in my professional career occurred last year, and it was shortly after some of the information on "20-20" and "60 Minutes" had been put out about formulas that were inadequate through some lack of quality control. This mother had decided that "since the formula was bad," she would take her child off all formula. Of course, it was just an instance of misinterpreting the information.

But my point is: we do have the technology, and we certainly have the scientific knowledge of what to disseminate, if we could just be about that business of getting it disseminated to the public.

So it is not just food assistance alone that we need, and it is not monitoring and evaluation, but we also need education of the public toward the nutrients that they do need.

Thank you.

[Questions submitted by Senator Helms to Ms. Bogle and answers thereto:]

Question 1. You stated that "the improvements in nutritional status were linked in part to the initiation of food and nutrition programs such as WIC, School Lunch and Breakfast, and Food Stamps." What studies or documentation do you believe demonstrate this connection?

Answer. I also stated in my comments that there had been no studies to show specific cause and effect relationships with regard to improvement of nutritional status as a direct result of these programs. The "perceived" improvements are merely professional judgments over long periods of time. No studies were done prior to initiation of these programs so that there is no basis for comparison at this time. No baseline data were generated to refer back to if documentation of nutritional status were made at this time. You might assume each individual participant as his own control. Then improvements within an individual child could be used as demonstration of efficacy of the program. Certainly WIC programs would have this information. In addition the WIC programs in Missouri and Louisiana have published (and were heard at the hearing before the Subcommittee) data which they indicated showed improvement in succeeding babies even though some of this data was challenged at the hearing.

My intention was to show the need for good "prospective" studies of government nutrition programs (because we have not had them) in order to determine which programs meet the objectives (improved nutritional status, reduced hunger or whatever) and which do not. A tour of the country and review of existing amounts of money being spent cannot give us the informatin needed. Programs which do not meet objectives should be eliminated. Studies should be designed prior to initiation of programs and continued through the life of the programs. My professional judgement is that had we had these studies with School Lunch and Breakfast their benefits would now be obvious to the public so that they would insist on such programs for all children.

Question 2. What statistics do you have on the number of "failure to thrive infants" admitted to Arkansas Children's Hospital during recent years?

Answer. I am unable to get statistics on admitting diagnoses or for that matter discharge diagnoses. However, my own statistics indicate an average of 3-4 per week being followed in the hospital dietitians. The Failure to Thrive Clinic (outpatient) sees on the average of 20 per week of which some are followups (from all over the State). Again in some instances it is difficult to determine specifics: (1) was food available, (2) was food offered, (3) were there medical or psychological factors decreasing food utilization, and (4) is there other disease interfering? Even so in a majority of cases where food is provided (formula usually) there is improvement in nutritional status.

Question 3. Do you know of any specific studies to indicate, one way or another, the effectiveness of expenditures for nutrition education? Is there any data to suggest that children (or adults) actually will change their eating habits based on nutrition education?

Answer. I do not know of any specific studies to indicate the effectiveness of expenditures for nutrition education as it impacts on resultant nutritional status which was the focus of the hearings. It makes no difference if habits change unless they result in positive gains in nutritional status. Most published reports are on methodology and not on outcomes measured by changes in individual's nutritional status. For many nutrition education programs that is not their objective, unfortunately.

The data on food habits is difficult to obtain and certainly difficult to establish cause and effect with nutrition education alone, if not impossible. Changing food habits is a complex concept involving more than just education. For example religion, health, culture, emotional and socio-economic factors all play a part in food habits. To isolate a single factor in a cause and effect relationship is not easy.

May I call attention to the four references listed below. The first two are reviews of research. The third chapter of No. 1 is especially worth reading. It is entitled "Influences on American Eating Patterns" and discusses the impact of mass media, culture and other factors on food habits.

Third reference is of a specific study where nutrition education was given credit for increasing weight in a group of underweight children.

The fourth reference is a report of nutrition education in 20 foreign countries and the resultant change in food habits and productivity.

1. Gifft, H. H., M. B. Washbon, and G. G. Harrison. Nutrition, Behavior and Change. Englewood Cliffs, N.J.; Prentice-Hall, 1972.

2. McKenzie, J. C., and P. Mumford. "The Evaluation of Nutrition Education Programs; A Review of the Present Situation." World Review of Nutrition and Dietetics 5 (1965).

3. Whitehead, F. E. "Nutrition Education for Children in the U.S. Since 1900." Journal of the American Dietetic Association 33 (1957) 880.

4. Education and Training in Nutrition. FAO Basic Study, No. 6, Rome, 1962.

Senator DOLE. Dr. Munro, we understand your plane was a bit late. I was going to say that you are probably familiar with all of the panelists; we would hope you might be able to summarize your statement, and we could just have a little discussion here about some of the problems.[1]

Dr. MUNRO. Mr. Chairman and members of the committee, I must apologize for being late.

Senator DOLE. We all understand.

STATEMENT OF DR. HAMISH N. MUNRO, DIRECTOR, HUMAN NUTRITION RESEARCH CENTER ON AGING, AGRICULTURAL RESEARCH SERVICE, USDA

Dr. MUNRO. We recognize that the elderly need more health care than do other groups. Little information is known about their nutritional needs, nor can we state with confidence the extent to which nutrition may affect the aging process of people.

It is important, to understand the relationship between nutrition and aging in terms of different stages of adult life. To begin with, how far does nutrition influence progressive age-related erosion of functions as the adult gets older? For example, we have loss of minerals from bone, finishing up with osteoporosis, and with an entity of dietary factors which affect this process, which is still to be resolved as to what is the best mixture for other factors, including exercise are evolved.

Second, nutrition is one of the major candidates among environmental factors in age-related degenerative changes.

Finally, and importantly for this meeting, there is inadequate knowledge of nutrient needs of people who have attained old age and generally consume less food than they did as young adults—the subject of this hearing.

Regarding the nutrient needs of the elderly, despite their increasing number, our knowledge and evaluation of nutritional status has not kept pace with this population increase. In the most recent edition of the Recommended Dietary Allowances, which is a guideline, to desirable nutrient intakes, the most recent edition largely bases its recommendations on extrapolations from studies made on young adults. Consequently, it is not surprising that the recommended allowances for adults are only divided into two broad categories, namely, 23 to 50 years and 51 years upward.

Though this situation is enforced by inadequacy of data, it represents a lack of realism to assume that the 50-year-old and the 90-

[1] See p. 173 for the prepared statement of Dr. Munro.

year-old have similar requirements. In this respect, the best authenticated difference is the need for calories for energy. Studies show that the caloric intake of males illustrates the continuing change. Taking a group of males at different ages, it has been possible to show a progressive decline of several hundred calories over the age range 30 to 80 years. With this extensive decline in energy, it is known that intakes of many other nutrients by older people are less.

A fundamental question is whether the reduction in total food intake leads to nutritional deficiency in some old people, a question to which no unequivocal answer can be given presently, since we do not know whether the nutrient needs of the body diminish with aging. For instance, some vitamins linked to energy metabolism may be needed in smaller quantities. However, some studies suggest that the need for protein does not diminish and may even increase with age. This conclusion is not agreed on by all investigators, and few other nutrients have been examined in any detail to determine the needs of the elderly.

Even if we accept the levels of nutrients in the blood of the healthy young subjects as applicable as standards for the elderly, we do not know whether the capacity for tissues to utilize these nutrients from the circulation is the same. For example, in the case of vitamin C, it was shown in nursing home cases in Britain that the concentration in the white cells of the blood of the elderly was much lower than in young adults and could be raised by extensive supplementation. Unfortunately long-term study failed to reveal any benefits of supplementary vitamin C in their physical capacity. Therefore, one asks whether the end result which everybody wants, namely tissue function to be retained, is achieved by changing intake.

Regarding the nutritional status of the elderly, the current methods available include dietary history, clinical examination, and biochemical studies, and this has been done quite extensively both in this country and in Europe. For example, in Britain a government survey showed that 6 percent of men and 5 percent of women between 70 and 80 and 12 and 8 percent respectively, between 80 and 90 had some evidence of malnutrition.

In the United States the health and nutrition examination survey—HANES survey, 1971 to 1974—found that half of the subjects between 65 and 74 had low intakes of a number of important nutrients, including vitamins and calcium, and indeed, the blood levels reflected some of these deficiencies. I should also add that in the USDA Human Nutrition Research Center on Aging in Boston that we are also finding evidence of a proportion of the elderly population whose blood levels fall below the standards acceptable for young subjects.

I want to emphasize that there are special target groups of elderly who are liable to have malnutrition. From an extensive study of elderly in England, for example, Exton-Smith has listed groups at special risk, which include socially isolated individuals, those with a physical disability contributing to their isolation, very old men living alone and those with depression and other mental disorders. He points out that 8 percent of the British population over 65 are housebound, representing three-quarters of a million people in a

population of 50 million. The majority of cases of malnutrition in the elderly will be found in this housebound group. Interventions that have been attempted include, for example, meals on wheels for those confined to their homes, while congregate feeding is more appropriate for those who are mobile because it has a socializing effect. People who attend these congregate feeding groups develop social contacts, which the elderly often have problems obtaining otherwise.

In order to make a significant impact on nutrition of the elderly, it is reckoned in England that four meals a week should be consumed out of the total food intake per week. The American experience has not been targeted to a specific vulnerable group among the elderly. Under title VII of the amendment to the Older Americans Act of 1965, the authority for these meal programs was initiated. It has since been consolidated with title III of the act. The impact of title VII has been analyzed by Dr. Posner, in Boston.

She discusses the ideal planning process and the various steps leading up to final evaluation of the program, and this last, that is to say, evaluation is regarded as an important and integral part in the planning process. According to Posner, the title VII nutrition program received high commendation from the recipients, more because of the social interaction from congregate feeding than from nutritional benefits that might accrue from the few meals that are eaten per week or because of the impact of the program on food purchasing habits of the recipients, teaching them nutritional principles.

The Boston survey did not include an assessment of the changed nutritional status of physical performance. However, this has been achieved on a small scale in the title VII congregate meal program in Missouri and the nutritional status and health evaluated by various means appear to have been better in the recipients than among nonparticipating elderly in the same area.

In summary, I would like to say that future intervention programs should identify nutritionally vulnerable target groups within the elderly population. Such intervention should be monitored for efficacy from the start of the program, and for cost effectiveness. Nutritional services to these groups should be part of a drive for improved social circumstances. The provision of adequate numbers of meals to add significantly to the nutrient intake of this group may prove to be very difficult.

A second subset of elderly who deserve to be monitored for nutritional status are those in nursing homes, and there are, of course, some data already published in this field. This population is, of course, a captive population in a sense and are more easily surveyed, and it would be indeed desirable to evaluate the benefits to health that could be achieved by study and correction of their nutritional status.

Senator DOLE. Well, first of all, I would just say to the panel that we appreciate your testimony very much. As I indicated earlier, I think our problem, if we have a problem, is how do we take the money we have, which we understand from Department witnesses is about $18.6 billion on nutrition program expenditures, and make certain that it reaches the greatest number of people who are in need.

I guess you probably do not deal with such things as error rates in the States. You focus on the program from a humanitarian perspective, and you do not talk about improving error rates in the States in order to save money. States do not pay anything for participating in some of the Federal programs. Therefore, they do not have much of an interest in reducing error rates and improving administration.

It seems to us that they ought to have some responsibility in this area. If we can reduce error rates in the States, and improve program administration, we pick up hundreds of millions of dollars that would either be savings or could be used in some other constructive way to help more people. Whether or not we replace the earned income deduction and standardize many of the current deductions, is something you probably don't focus on; is that correct? When you look at a program such as food stamps, do you look at ways we can improve its administration or efficiency, or do you look—as I assume you probably do—at groups of people who are not being served and how we can better serve more people? I do not think that we are at cross-purposes. Maybe we just have different responsibilities from the standpoint of how the money is spent.

Dr. BUTTERWORTH. I will try to answer that. I do not think this panel would look at those types of administrative problems. I, for one, would want to say that although I am dedicated to the search for the best health for the food dollar, I would be looking at the end result and try to analyze the impact of consuming certain foods and the adequacy of the mixture on lifelong health and the end results of that health, growth, the development of cancer, the development of infectious disease, and all of those health benefits that might be related to the diet.

Then hopefully it could be related to the items that are recommended or encouraged or distributed. For example, I do not want to identify any specific product, but we do not want to be distributing excessive amounts of the wrong surplus commodity.

Senator DOLE. I am a strong supporter of the nutrition programs, but I guess the problem we face is that we have to make certain that we are properly spending the available funds. When we start to change the benefit reduction rate or the error rates, there is always an automatic response out there: do not cut anything. Well, to me, that is an improper response. Maybe we ought to reduce program growth in certain areas. Maybe we ought to expand the food stamp program in certain areas. The WIC program is another very worthwhile program. Maybe questions raised about the elderly should lead us to take a look at programs affecting them.

Even in some of those programs, we have people who really are not in need participating in the programs—like medicare. I know that to be a fact because somebody from my hometown wrote me a letter identifying some of the people who participate; I know the people and he knows the people—they are quite well off, but they do get the social benefits. They also are able to save money, and other people may not be able to participate because there is not enough money to go around. So how do we put all of that together and make it work?

Dr. BROWN. Senator, in my research we have not addressed that issue, as you surmised or speculated. My view on that, however, is

this. You were up in Boston a couple of days ago. One of the senior vice presidents at a bank there, who has gotten very interested in the issue of health care from the point of view of industry, has said that he has been very surprised that the error rates stated for many of the social or human services program, Federal and State, are marginally better than even in industry.

Now, nevertheless, I think that we all take what you say very seriously, and that is, the question is: How can we make them even more efficient and help, you know, move the 9.7 percent that the Secretary talked about on down?

What concerns me is this. While we are trying to do that, there are two issues that crop up. One is whether we are expecting something in government and human services programs that we do not ordinarily expect, even in what is supposed to be the most efficient side in our Nation, in industry; and, second, how far we can go down.

I suspect that were we to suddenly see a 9.7-percent error rate vanish, we would still see the kinds of things that our data has shown here. As you well know better than I, and I certainly defer to you on this, but it seems to me that we did not suddenly lose the ability, for example, to fund school breakfast programs. What was proposed was a policy rather than an economic argument, per se. The policy argument was that as a nation we did not need to fund people who were in that so-called middle-income category or on the edge, that we were wasting public moneys; that these people would take care of themselves; and, furthermore, that the cuts would not, in fact, harm people's health.

I think that what we are now seeing beginning evidence of is that that hope is, in fact, not bearing out, that that is not, in fact, true.

Senator DOLE. While we try to preserve the nutrition programs, they are often criticized for giving benefits to those who don't need them. Some think it is popular to demagog the food stamp program and some of the other programs, or some "rich parent," whose children are participating in the school lunch program, which is subsidized by the Federal Government.

I have had this issue presented on talk shows, and I will not mention one of the participants whose children are getting subsidized lunches—he thought it was an outrage. This was an indication to him that the Federal Government has gone crazy.

So that is why I think that this hearing will probably help us focus on some of the real concerns that you have, and then we can try to corrolate those with the dollar amounts available to see if we can satisfy some of the concerns.

I think all of you have indicated we do not have enough history and documentation in some of the areas. We have not monitored the programs well enough. We lack nutrition education in many areas. We have had hearings in the past on this subject. I know Senator McGovern, who was the former chairman, tried to exercise oversight. He was interested in nutrition education. I am not certain how many medical schools even teach nutrition. Do you do that in your State?

Ms. BOGLE. A few.

Senator DOLE. Most physicians can hand you a diet to lose weight or something, but I am not certain they have been schooled in nutrition education. Maybe there are some at Tufts.

Dr. MUNRO. They are learning to learn.

Senator DOLE. They are learning?

Dr. MUNRO. They are beginning to.

Senator DOLE. We are happy to have Senator Pryor here from Arkansas.

STATEMENT OF HON. DAVID H. PRYOR, A U.S. SENATOR FROM ARKANSAS

Senator PRYOR. Thank you, Mr. Chairman.

I have a short statement for the record, if I might ask that it be included.[1]

I would like to commend our distinguished chairman, Senator Dole. He has been on the cutting edge of these issues for many years, and he is one who not only is knowledgeable, but also very caring, and is attempting to make these programs work and work better, and certainly to assure that they get to the right people, the people in our society who are the most needy and those who really deserve this support.

Mr. Chairman, I would like to say I apologize for being late and for missing the testimony of Margaret Bogle, who, of course, is from our State of Arkansas and a real authority in the area of nutrition, and, Margaret, I do apologize.

We have a Texas and Arkansas shoot-out once a year when the Longhorns play the Razorbacks. We have just had another shoot-out down at the Federal Home Loan Bank Board. For 50 years in our region the Federal Home Loan Bank Board has been in Little Rock, and the debate now is as to whether to move it to Dallas, and you can imagine that the Governor of our State and our delegation and people from the other State were present, so it went a little longer than we had anticipated.

I have a question, if I might, Mr. Chairman, for Dr. Munro.

It is my understanding that the administration in the elderly nutrition program would look at each household rather than each individual person. I am wondering if that is a wise approach because some elderly persons certainly have special diet needs, and they may not be cared for properly if we look at each household as an entity.

Dr. Munro. That is correct, sir. There is, in fact, a lack in previous attempts under title VII to deal, for example, with special ethnic requirements, and also special dietary needs for medicinal purposes, and I think you are quite correct in identifying that pocket of important individuals.

The other point that I should reemphasize is that there are target groups of single elderly living alone, usually having difficulty in getting out, and their marketing capacity is circumscribed as a result of that. They are the most likely victims to suffer inadequacies in their dietary history.

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[1] See p. 133 for the prepared statement of Senator Pryor.

Senator PRYOR. Very good. Would you recommend a change for us to consider?

Dr. MUNRO. Well, I believe that the programs should focus on specific groups so that one can at least identify both in the young and in the elderly groups who are most likely to have nutritional deficiencies and attempt to use the scientific manpower to correct these, first of all, by identification; and, second, by institutional intervention.

Senator PRYOR. Thank you, sir.

Senator DOLE. I think the record should reflect that, when I first observed Senator Pryor, he was in the House, where he was focusing on some of the very issues that he is now asking questions about; and in the jobs bill that passed, the $100 million to help the homeless and others was the amendment sponsored by the Senator from Arkansas, Senator Pryor. It is now the law, and today, in fact, I saw on TV that they are already beginning implementation. The question is whether they can spend the money by October 1. So that, I hope, has not gone unnoticed in the State of Arkansas.

Ms. BOGLE. It has not.

Senator PRYOR. Well, let me just comment on that, if I might.

Senator DOLE. Surely.

Senator PRYOR. I heard on the radio today that this was being implemented at this time. I think it will be interesting to follow. I think it would be interesting, Mr. Chairman, if the GAO or some other group followed the $50 million given to the Governors for distribution and the $50 million given to FEMA and then out to the private charities, and to follow this food to see where it went and these dollars to see how they impacted.

Now, I love Governors, and I used to be a Governor, but I love even more the idea of bringing into partnership the private organizations and charities of America because I think we will see, one, an administrative cost that is much lower; and, two, I think that we will see that these charitable organizations know exactly where or almost precisely, I should say, where these dollars should be expended.

I think it would be an interesting study, especially as it is going out at the same time, sort of in the same package. If we could follow that, I think it would be a fascinating study of where $50 million on each side is spent.

Senator DOLE. That would be a good idea. Perhaps we can help implement that.

I think Dr. Brown indicated some concern about the private charitable groups missing certain people through outreach or whatever, and he had some charts on soup kitchens and their participants. As I recall, your impression was this might serve some emergency purpose, and that is primarily what this is. But you see some weaknesses in that structure, too; is that correct?

Dr. BROWN. Yes, Senator, it is, if I might just respond directly to Senator Pryor.

The people there in the soup kitchens and the food pantries that we are studying themselves say at best this is a short term, ad hoc emergency effort because the kinds of foods that we get are not nutritionally adequate, and we do not have the facilities and ability to reach out to all of the people who need help, nor can they find us.

If you can picture a mother and father with two children trying to find 21 meals a week by going around, you know, from facility to facility.

So in summary, I certainly agree with you that the private voluntary effort has a longstanding role that has been played in our Nation and is certainly significant here, but as a matter of public policy the present way that we feed our citizens and make sure that they have adequate nutrition probably is only a stopgap measure at best.

Senator PRYOR. I had the privilege of eating in a soup kitchen recently in our State, Margaret, at the First Presbyterian Church there. Of course, it was a very wonderful endeavor by that group, and about 250 people eat each day there, and I was very impressed not only with the quality of the food served, but also certainly the dedication of the people.

I know Senator Dole who has championed a piece of legislation, S. 17, to open up our commodities much more broadly so they can go out to the hungry and needy. In that legislation, Bob, one of our debates the other day I remember was how efficiently and quickly USDA can distribute that food.

Senator DOLE. I raised that question, but I did not put your name in the record. I said there were some who did not want that discretion on the theory that it would never happen.

Senator PRYOR. But I just think it is so important that we devise a formula of distribution. It goes really to us. Here we are in a country with surplus grain. We have a PIK program we think is going to work, and with all of this surplus grain, I think 15 million people starved to death last year. I mean something is crazy, and I wish we could devise a system.

Senator DOLE. Is a lot of the problem is nutrition education as well as availability? Does this mean; you could pile the right kind of foods at someone's door and they would go out and buy something else, not knowing what is proper to eat. The late Senator Humphrey sort of pioneered money for nutrition education, which has gradually been channeled out. Getting back to education in medical schools, the WIC program does have an education component. Do you find that to be a problem? Recipients may have access to adequate food, proper food when they are old or young, and yet they may not know how to prepare it or what actually constitutes a good diet.

I do not know what the answer is, But I would appreciate any comments on this subject.

Ms. BOGLE. I think that is unquestionably a problem and has been, and it was part of my reason for saying that one of the major priorities that I see we need to be looking at is in the evaluation of what is the benefit.

Sure, when the supplemental foods program was in effect and we were distributing the surplus commodities to the homes, we would go into those homes and find cornmeal or dried milk or that sort of thing that was not being used. Other commodities were being used. So they did not know how to use them.

But I guess the thing that bothers me as a health professional and as a private citizen, is the fraud and the error rate in the food stamp program and others. We do not want that as private citizens

or as health professionals because that money could be used for some of the other people that need to be getting it. But as long as we continue to look at our nutrition programs as just simply food assistance programs and not begin to look at how we are going to educate the people later on and get away from having nutritional programs that are only distributive food assistance programs, although some people would frown on it and would fuss about channeling money into evaluative programs and monitoring systems when it was going to take money from actual food; it seems to me that on down the road a ways, we are going to be ahead by being able to utilize the information we would get from evaluation and teaching people how to eat better and to know what they should be eating.

Senator DOLE. Plus it may save us a few billion down the road on health care costs, which I think Dr. Butterworth mentioned or someone.

Ms. BOGLE. Exactly.

Senator DOLE. We have another problem now, because a lot of the things you mentioned must be recession related. I hear statements on television, that people are starving because we cut the food stamp program. I do not think this is a fair characterization of what is happening. A lot of it is recession related.

There is another area of concern; many unemployed people have lost their health care coverage, including many young workers with children, so this merely compounds the problem. People do not have enough money, and they have to choose between food, insurance or whatever—tough choices. Senator Pryor is aware of what we are considering in our own Senate Finance Committee. You know, the cost of medical care almost goes straight up. After 30 days, your coverage is gone with most companies. I do not know what the answer to it is. I think one of you mentioned that as another problem.

Ms. BOGLE. That is a problem at our hospital.

Senator DOLE. We appreciate your testimony. Senator Helms has some questions, which I might submit for you to respond in writing. I do not want to burden you now, but how do you determine what might be is hunger, malnutrition or inadequate diet. The terms are always tossed around, and it might be useful to distinguish among them. Thank you very much.

If it is all right with some of the witnesses who are scheduled for this afternoon, it might save us some time if we could call on you this morning. I know there are three of you here who were going to testify this afternoon. Also, Dr. Rush has now arrived. I think Dr. Rush, Dr. Popkin, Mr. Blount, director of the Missouri State WIC program, and Father Cunningham are in the room now. Maybe you could come up, and we could hear from you. This is sort of a mixed panel now, but it will work all right.

First of all, I would say, as I have indicated previously, your entire statements will be made a part of the record. If you could summarize your testimony and leave some time for questions, that would be helpful.

First of all, I think we will call on Dr. Rush. His time was supposed to be with the panel that just preceded this panel. Dr. Rush, we are happy to have you. Then, we can proceed in any order, and

Dr. Popkin, Mr. Blount, and Father Cunningham can wrap it up for us.

STATEMENT OF DR. DAVID RUSH, PROFESSOR OF PEDIATRICS, OBSTETRICS AND GYNECOLOGY, ALBERT EINSTEIN COLLEGE OF MEDICINE, BRONX, N.Y.

Dr. RUSH. My name is David Rush, professor of pediatrics, obstetrics and gynecology at the Albert Einstein College of Medicine in the Bronx, and head of the division of pediatric and perinatal epidemiology. I am honored to be asked to speak here today.

I will, for the sake of brevity, omit a long description of my professional background.[1] I am a pediatrician and epidemiologist long interested in problems of nutrition in poor American women and children.

There are several issues I would like to touch on today. The first is my interpretation of what limited information exists on the effect of nutrition during pregnancy and early childhood on the viability and development of American children.

The second is to give some thoughts on why this information, that we as a society so sorely need, is so flawed and limited.

The third is to give some personal thoughts about how we might begin to remedy these problems.

We know far less about the nutritional status of our population and the effects of governmental nutrition programs than we should. For instance, we cannot assert with any certainty whether there has been change in the health and nutritional status of poor pregnant women and their children over these last few years. There may have been, and we rightly can be surprised and disappointed that such a seemingly straightforward question cannot be easily answered, but it cannot.

Because of this lack of knowledge, it is now impossible intelligently to allocate resources or wisely attempt to improve either the nutritional status of the population in general, or pregnant women and young children in particular.

I was asked by the Department of Agriculture a year and a half ago to become the principal investigator of the ongoing national evaulation of the WIC program. I assume that is why I was invited here today.

We know far more about the effect of nutritional changes in laboratory and commercially important animals than in the human. The findings of a recent review on the effects of change in protein and calories during pregnancy can be fairly easily summarized.

First, in studies of poor pregnant women throughout the world, and where research designs are adequate, the range of change in birth weight from nutritional supplementation during pregnancy is consistent and less than we had hoped. My technical comments on adequate research design are in the written record.

The second generalization is that our assumption, held universally 20 years ago, that protein is the likely limiting nutrient in the diets of the poor at all stages of the life cycle turns out not to be true. We were shocked when we found that supplementation with

[1] See p. 137 for the prepared statement of Dr. Rush.

food of high protein content caused depressed birth weight. On review, this result was also imbedded in all other similar studies. I refer those interested to the written record.

We thus know that when poor women, in many different parts of the world, are offered supplementary feeding programs during pregnancy, with balanced rather than high concentration protein foods, birth weights can be raised by around 40 to 60 grams, or 1½ to 2 ounces.

What we do not know is whether this small change in birth weight increases viability or improves long-term development. While birth weight is very strongly associated with survival, we have not been able to assess whether these small increases in birth weight following nutritional supplementation lead to improved survival, since no studies of supplementation have been large enough to give a reasonable test of this question.

In the United States death in early life is now so infrequent that a very large number of pregnancies must be followed to test with any certainty whether prenatal feeding is effective in decreasing mortality.

Our knowledge of the effect of feeding programs in pregnancy and early postnatal life on behavior and intelligence is even weaker than for growth and survival. It is vexing to create policy in spite of such ignorance.

The WIC program is no exception. The first large evaluation of WIC was performed early in the life of the program. Very few women were studied, and the conclusions that were drawn were flawed by several technical limitations.

All of the evaluatory efforts of which I am aware, and I have become familiar with most, continue to have many limitations. It is not appropriate to use this forum to discuss these, but in my opinion we do not know about the direct effects of the WIC program on survival, on hematologic status, somatic growth, behavior or intellectual development of the child. We do know something about birth weight, but birth weight is on a surrogate for these more important measures.

We do not even know whether the nutritional practice of the recipient families have been modified. This does not mean that we can conclude that the program has been ineffective, but rather, that we lack enough information to make any secure judgment.

We have, thus, been remiss in our responsibilities to the millions of poor women and children for whom this program is intended, and to the thousands of dedicated people trying to make the program effective. We do hope to remedy some of these problems in the current evaluation of WIC.

When approached by the Department of Agriculture to direct the evaluation, I had serious reservations. I was already busy enough, and the evaluation was to be let to the same prime contractor, the Research Triangle Institute in North Carolina, who had been working on it for 2 years. My injection into the work could have caused resentment or hard feelings, but there has been a good working relationship, and we have gotten along well.

One reservation remains operative. About $1.5 million of the $5 million allocated to this evaluation had already been spent, and

fiscal stringency has proved to be an ever-present and, at times, negative constraint on our efforts.

I will mention a few of our plans for the evaluation.

The first evaluation of the program was done on only a few recipients of services and at only a few sites, as was the newer study which our efforts have supplanted. WIC is now managed by 84 State and Indian tribe agencies, through approximately 1,700 programs, with services offered at some 5,700 sites. The past and superseded evaluations were no more than 12 to 18 such sites with a scant few hundred women and children involved.

In contrast, we currently have field efforts going on in 57 areas around the country, at nearly 200 sites, and will recruit, we hope, some 7,000 pregnant women, one quarter to one-third a comparison group from public prenatal clinics where WIC is not offered, and about 3,000 preschool children, half to two-thirds WIC recipients and the rest comparison children of comparable socioeconomic status.

We recognize that there are inherent and inescapable problems in assessing the effect of WIC benefits currently. On one hand, many of the professionals in the program feel strongly that, because of reduction in access to and possible reduction in quality of health care to the poor, WIC benefits may not be optimally utilized, since WIC is predicated as a service to be coordinated with, and as an adjunct to, high quality prenatal and young child health care.

On the other hand, WIC is now a mature, ongoing program. Dedicated staff seek those at highest risk of pregnancy problems in order to make maximum use of limited benefits. Thus, those who do not receive benefits, on the average, will be at lower risk than those receiving them. Although we can attempt to identify risk characteristics, it is extremely difficult to do so with precision, and thus, WIC may appear less beneficial than it really is when recipients are compared to nonrecipients who are, on the average, at lower risk.

Also, WIC has now existed for a decade, and some of its programmatic goals have been incorporated into American prenatal care. For instance, diet during pregnancy is now considered far more important than in the past, and weight gain during pregnancy is no longer so severely limited. Thus, women who are not directly served by WIC are receiving prenatal care which has been influenced by the existence and presence of WIC in American society for the past decade, and those not directly receiving WIC services cannot be considered free of the effects of the WIC program. Differences between them and program beneficiaries may be an underestimate of the long-term effect of the program.

Thus, any study of current beneficiaries may give a falsely low estimate of the benefit of the program. We are contending with this problem with another large, and somewhat audacious, study of perinatal outcomes over the past decade in the 1,600 counties at those 23 States where adequate statistics are available. Duration of pregnancy, birth weight, and infant survival will be related to the introduction of WIC into a county and the proportion of likely eligible women served.

In this massive effort, we will initially process about 50 million birth certificates, as well as data on mortality, WIC benefits, data from the census, and indices of health care within counties, such as the presence of neonatal intensive care, maternal and infant care projects, improved pregnancy outcome projects and the rates of induced abortion.

Indeed, we had hoped to do more. Because of limited funds left to complete this extensive evaluation, we have had to eliminate assessment of hematological status, and also have no funds for follow-up of the children after birth, to assess whether WIC affects the incidence of breast feeding. This has become an important policy issue. It has been asserted that WIC actually counters to breast feeding because the benefits offered to the woman who is bottle feeding are worth more, in dollars, than to someone who is breast feeding.

I would not be responsible if I did not mention some long-term problems that underlie the paucity of knowledge on the effects of nutrition during pregnancy and early childhood. In my estimate, these problems can be addressed by governmental action, by you in Congress and by the executive branch.

First, there are very few scientists skilled in the quantitative evaluation of community and public health nutrition or in epidemiology as related to nutrition. We desperately need training programs of high quality in these areas. We might even have trouble currently staffing such training programs, since skills are so limited, even if they were funded.

On the other hand, unless long-term personnel needs are addressed now, future prospects will be dim.

Second, research on these problems is fragmented and not of the same competitive high quality as in many other research fields. I have been responsible for the scientific program of the meetings of the Society for Epidemiological Research, and the Epidemiology Sections of the American Public Health Association, the Society for Pediatric Research, and the American Pediatric Society, and have thus had to read and evaluate thousands of research abstracts, many research papers for scientific journals, and many research proposals as a member of an NIH study section.

The research in this field of nutrition and pregnancy and childhood is not good enough to serve the needs of our society. There must be a focused attempt to support public health nutrition research and evaluation with careful ongoing peer review and monitoring.

There was a fine statement on the evaluation of WIC by the Advisory Committee on Nutrition Evaluation. That group has not remained convened, however, and their role has not been institutionalized into ongoing nutrition research.

The contracting process for soliciting research efforts is less than ideal. It is a matter of chance that a university researcher, such as myself, has been involved in this effort. We rarely have the available administrative and technical resources to respond to complex requests for proposals in the very brief time that is usually available. Larger research organizations, usually not universities, can and do respond, but they have not generally had longstanding interests and deep immersion in the relevant scientific issues.

We need more of the not very glamorous but absolutely essential research in nutritional methodology. There should also be more funds available for grants to stimulate innovative peer reviewed research.

Whether all of these needs might be best met by an entity such as a National Institute of Nutrition is difficult for me to say, but the current state of affairs is not optimal, both for our own people, as well as to promote our humanitarian commitments to the undernourished throughout the world. We need more comprehensive and focused attention on nutrition at all levels, to include training, basic research, research in field methodology, on the effects of nutrition on human development and disease, and on the evaluation of programs.

One last comment: It seems reasonably clear that much of our past effort has not focused on what are the key nutritional issues for American children over the next decade, the precursors of adult disease and disability from malnutrition and other experience in early life. The contributions of nutrition in childhood to the etiology of later disease, particularly cardiovascular diseases such as high blood pressure and atherosclerosis, are likely to be of much greater importance than relatively minor variations in linear growth. So far food programs supported by the Department of Agriculture and the evaluation of these programs has paid scant attention to these issues.

Thank you.

[Questions submitted by Senator Helms to Dr. Rush and answers thereto:]

DEAR SENATOR HELMS: Thank you for your letter of July 14th, and for the interest which you show in my testimony before your committee. The answers to your questions are technically complex; I will try to err, where I see the choice, on the side of over-explanation. I wish to offer, however, two caveats. First, I do not think we are capable at this time of estimating the effectiveness of the WIC program. What follows is only an examination of the flaws in previous studies which, in my opinion, deprive us of a reliable basis for such estimation. Second, what follows is only a preliminary and partial critique of the relevant research. As part of the current national evaluation of the WIC Program (Contract No. 53-3298-9-87 from the United States Department of Agriculture) we will perform a comprehensive and detailed analysis and summary of all past evaluations of the health effects of WIC benefits, which we aim to finish by November 1st. In addition, we applaud the wisdom of your committee in requesting that a similar review be undertaken by the General Accounting Office. I am sure that neither we nor the GAO will have any stake in the conclusions of such a review, other than to seek to define the true benefits of the WIC program, and it should be helpful to have an additional impartial and disinterested weighing of the evidence.

While any decisions about the future of the program should thus await both these reviews and our current national evaluation, some preliminary comments might be helpful to the work of your committee.

Question 1. You have called into question the conclusion of several studies which purported to demonstrate considerable success from the WIC program. I would ask you to comment specifically on the following four findings, as summarized by recent congressional testimony supporting the WIC program's effectiveness.

There is a proven positive effect on the birth weights of infants born to (WIC) program participants and a decrease in the incidence of low birth weight (less than 2,500 grams) and/or small for gestational age infants.

Significantly fewer neonatal deaths occur in infants born to WIC mothers when compared to babies of non-WIC women.

From cost-benefit point of view, the WIC prenatal supplementation program is highly desirable.

As the length of participation in WIC increases, the positive effects (of WIC participation) also increase.

Question 2. Can the findings from these earlier studies be "projected" as nationally representative?

Answers 1 and 2. In summary, we must conclude that past studies do not allow us to assess accurately the effect of the WIC program on either birthweight or neonatal death, nor do we believe that they establish the incremental benefit of increased length of participation in WIC during pregnancy. Therefore, the data do not exist for an adequate answer either to question 2, whether the results of the studies can be projected as nationally representative, nor to the third part of question 1, regarding the cost benefit ratio of the WIC program.

While we must defer specific and detailed analysis of the various WIC evaluations to our report later this year, we thought it might be helpful to address four of the better known and more widely quoted of these evaluations. Field research on the effects of nutrition is very difficult. It is hard to quantify dietary intake, because memory fades, and because we may consciously our unconsciously distort our report of what we have eaten. It is even harder to accurately estimate the nutrient content of the diet from even an accurate history of foods eaten. Further, such nutrient intake is only one part of the equation of nutritional adequacy: an adequate diet for one person may not be adequate for another. There is much individual variation in needs, and there are needs special to particular stresses, for instance, for the pregnant adolescent who has not yet completed her growth, or among those doing heavy physical labor. Also, the effects of nutritional inadequacy may be quite subtle, and we are often forced to measure some surrogate for what is really important. For instance, we here discuss birthweight, rather than survival, or optimum cognitive and behavioral development because birthweight is correlated very strongly, with likelihood of perinatal survival, and much less strongly with good later development. The implications are very important to bear in mind during this entire discussion. For instance, the beneficial effects of prenatal nutritional supplementation on infant psychological performance, both in our studies (Rush et al. 1980a, b) and those in Bogota (Waber et al. 1981) were in subgroups that did not manifest increased birthweight with prenatal supplementation. In these studies, effects on mental functions thus appeared to be independent of any effects on fetal growth, and an assessment of programmatic benefit based on birthweight alone would have missed very important effects. Thus, in our current national evaluation, our observations will end at birth. We are gratified that the Department of Agriculture is about to request proposals in order to let a contract to study the offspring of the women in our study who received WIC benefits during pregnancy, and controls, till the first birthday. Without this extended study, we will know little or nothing about whether WIC benefits during and immediately after pregnancy affected the likelihood of breast feeding, the incidence of infant disease, compliance with good health practice (immunization, etc.) or infant somatic and behavioral development.

Finally, results must be thoughtfully analyzed and carefully weighed against other past and current studies, to see if they make sense, relative to both past experience, and concurrent observations in the study under question.

Thus, it is hard, even daunting, to design, execute, and interpret a study in which conclusions are both accurate and yield important information. What follows is a brief review of several of the best known, and most important evaluations of WIC with regard to their study design, choice of study subjects, and controls, and data analysis. quite subtle, often inapparent flaws in any of these essential features of good research can undermine any secure inference from the study. In summary, we must sadly conclude that these and other past studies do not currently allow us to accurately assess the effect of the WIC program.

Both the first National WIC Evaluation by Edozien and colleagues at the University of North Carolina (Edozien, et al. 1976, 1979), and the study of Kennedy et al. (1982) have been published, and are therefore available for review by the scientific community at large. I will also address two studies, that, as far as I know, exist only as reports to the Food and Nutrition Service of the Department of Agriculture, that of Kotelchuck and colleagues, who evaluated the WIC program in Massachusetts in 1978 (Kotelchuck et al. 1981) and Metcoff and colleagues at the University of Oklahoma (Metcoff et al. 1982).

Edozien et al. (1976, 1979) studied 4,125 women in 19 different programs early in the life of WIC. Their assessment of the effect of WIC benefits on birthweight was based primarily on the contrast between 41 women who enrolled in the program postpartum, and others who enrolled during pregnancy, particularly 139 women who were enrolled for more than six months. There were no controls who were not involved with WIC. Using multiple regression analysis, the researchers estimated that there was a difference in birthweight of 136 grams between infants whose

mothers were enrolled in WIC for six months or more, and those enrolled postpartum.

The study of Kennedy et al. (1982) was of 910 women who received WIC benefits, compared to 418 women who either applied for WIC benefits but were not certified because there were no program openings, who were certified postpartum, or who received prenatal care at clinics without WIC programs. (The proportions of these three very different types of women in the control group were not reported.) The study covered the period from January 1973 to February 1978, and was undertaken at nine sites, in four geographical areas of Massachusetts.

Kotelchuck et al (1981) compared the outcome of pregnancy of 4,126 WIC recipients in 1978 in Massachusetts to that of women who had not been enrolled in WIC, matched on several characteristics from their children's birth certificates.

Metcoff et al. (1982) aimed randomly to allocate two groups of 225 women either to receive WIC benefits (150 in each group) or to serve as controls (75 in each group). They considered both groups to be at high risk. One group was predicted by multiple regression analysis to deliver infants with birthweights less than 3,100 grams. The other group was predicted to deliver infants with birthweights over 3,500 grams. (The latter group might logically have been characterized as being at very low risk since infants with such high birthweights would be expected to have extremely good choice of surviving the perinatal period and infancy.) In the first group that predicted to have infants of low birthweight, 63 women who received WIC benefits completed the study, as did 37 controls; in the group predicted to have heavier infants, 92 who received WIC benefits completed the study, as did 34 controls.

PROBLEMS OF STUDY DESIGN AND ANALYSIS

(1) Adequate power to test a reasonable level of likely WIC benefits:

If there are too few subjects in a study, the chance to test properly for some presumed effect is severely diminished. The numbers in the North Carolina and Oklahoma studies were much too small to test for reasonable effects of nutritional and other services in pregnancy on birthweight (see below; answer to question (5)).

(2) The choice of controls:

The value of efforts to assess the benefits of WIC rests on several obvious assumptions. It is assumed that WIC recipients received adequate amounts of food and other benefits, and that they were likely to be responsive, i.e., were at nutritional risk. An assumption which is not so obvious is that the study group was compared to some other group whose outcome would be expected to be identical to theirs, were it not for the WIC benefits received by the study group. (This comparison group is generally called the control group.) In some circumstances, people in the study group might be compared to themselves before they received benefits, but in these four studies WIC recipients were compared to others.

The choice of randomly allocated controls in the Oklahoma City study is theoretically ideal. In the other three studies, however, the choice of comparison, or control, groups was problematical. In the North Carolina study, the comparison group were women who began receiving WIC benefits postpartum; in the Kennedy et al. study, an unspecified number of the comparison group were also women who only began receiving benefits postpartum. Both studies assumed that such women would be comparable to those who received benefits during pregnancy, but past research experience forces us to consider this a very uncertain assumption. The behavior and circumstances that lead some women to get benefits early in pregnancy, and others to do so very much later, are likely related to such issues as their education, social aspirations, and competence as efficiently applying for and receiving benefits; such characteristics are known to be strongly related to many health outcomes, and certainly to birthweight and later child development (Rush, 1982, 1983). Thus, in these studies, women who were certified as eligible for WIC, but who only entered the program postpartum and therefore were likely at higher risk, were used as a comparison group.

In Kennedy et al.'s study, there is strong internal evidence that the controls were at higher risk than WIC recipients. For instance, from their Table 1, I calculated that while 3.9 percent of past births to women who received WIC benefits were premature (0.047 prior premature births, divided by 1.21 living children), 7.3 percent of control women's children had been born prematurely (0.081 prior premature births divided by 1.12 living children), an 86 percent excess of past premature births among controls. The authors placed great confidence in the fact that this difference was not statistically significant, but in deciding whether cases and controls are comparable; the issue of significance is not as important as whether such differences

were of sufficient magnitude to bias results. Clearly the non-WIC group had a much more frequent past history of premature delivery.

There was further internal evidence in their paper consistent with the possibility that the control group was at higher risk than the study group. The raw differences in birthweight between WIC recipients and two different sets of control women were 122 and 140 g (Table 2). After accounting for maternal biological characteristics, the difference was reduced by more than 50 percent, to 60 g. Two explanations are possible for this dramatic reduction. One is that the WIC and control groups were not initially comparable, and the other is that some of these differences in biological characteristics may have mediated the effect of the WIC program. From the data presented, it is not possible to choose between these explanations.

In addition, nowhere in their study do they describe such key information as the difference in racial distribution of cases and controls (black women have infants of much lower birthweights, on average, and deliver earlier, than do white women). While they state that the social characteristics did not affect the outcome, they do show (Table 10) that there was a 222.5 gram difference in birthweights between the whites and blacks in their population.

In Kotelchuck et al.'s study, the controls were likely to have been, on average, at lower rather than higher risk, compared to WIC recipients. Controls were matched to WIC recipients on race, area of residence, and one of four categories of years of education. This was, in our judgment, a relatively weak set of matching characteristics to try to get a control group comparable to subjects in nutritional risk and socioeconomic status. These controls were never examined, so they were not selected by the criteria actually used in determining eligibility for WIC, unlike the women who were postpartum enrollees in the North Carolina and the other Massachusetts study. If the WIC program was working effectively, it was seeking out women of highest risk, recipients who would, on average, be expected to have worse pregnancy outcome than controls. We might thus expect bias in favor of controls, and these lower risk women might be expected to have better pregnancy outcome, independent of any intervention. If controls were only weakly matched to cases, and they were truly at lower risk, we might expect too small an estimate of the effect of WIC on birthweight. in fact, infants of women receiving WIC had mean birthweights only 21 grams heavier than controls (Table 15). This probably is an underestimate of effect (see answer to question 5, below).

(3) Choice of study subjects:

There are serious problems in two of these studies in the group of WIC recipients chosen for study. In the Kotelchuck et al. study, 4,898 participants in the WIC program for 1978 were identified, and 494 were then excluded from further study. Of that 494, 353 were excluded because they were terminated from the program. The exclusion of this group is a serious methodological flaw. Those categorized as terminated from the program are likely to have had adverse pregnancy outcome, unrelated to WIC, thus biasing the study towards WIC, in quite specific ways (this is the opposite direction of bias from the undermatching of controls, noted above). The logic is as follows: the reasons for termination included non-cooperation, or non-cashing of vouchers, and from what I understand, included not returning for a second visit to the WIC program. One of the likely reasons for "non-cooperation", therefore, is that a woman might have delivered prematurely, after having been recruited into the program, but before cashing vouchers or returning for her second visit. She may thus not have had an opportunity to cash the vouchers or to return for subsequent visits. These premature deliveries almost surely include a high proportion of neonatal deaths. In addition, this group of 353 included an unspecified number of women who were truly non-cooperators. Such non-cooperators are understood as generally at very much higher risk than those who do cooperate with programs, independent of any program content or effect. While these women were excluded from the study group, there is no way of excluding comparable women (those who would not have returned because they delivered very prematurely or those who were inherently poor cooperators with this program and possibly other programs) from the control group, because there was no way to identify such (latent) characteristics. The control group thus is likely to include a small group of very premature deliverers and non-cooperators that have been excluded from the case group. Does this mean that the study was flawed? There is strong internal evidence for just such a conclusion. The major benefit that the authors posited was the lowering of the neonatal death rate. Among 4,126 cases, there were 12 neonatal deaths, a rate of 2.91 per thousand, and in the 4,126 controls, 35 neontatal deaths, or a rate of 8.48 per thousand (Table 15). The rate of under 3 per thousand is not credible. Such a rate was less than half that among the most privileged populations in the world (for instance, for Holland or Sweden) at that time, yet was found in a relatively impov-

erished group, whose expected rates would have been about four times as high. (Indeed, the rate of 8.48 per thousand among controls was also low.) The conclusion is inevitable that the rate of under 3 per thousand was more likely an artefact of study design than a real effect of the WIC program, and that for some reason, deaths were missed. There was an excess of 21 deaths in the control group compared to the WIC group, and it is essential to know if a like number occurred among the 353 subjects who were terminated.

The choice of study groups for the Oklahoma study is confusing. As mentioned above, although it was sensible to have chosen the group expected to have infants of low birthweight, there were too few such subjects for an adequate test of the program. (The authors posited an expected increase in birthweight of 400 grams, which cannot be justified from past experience. In the severe wartime famine in Holland in 1944–5, birthweights were depressed by about 300 grams and, in general no more than 100 grams increase from nutritional supplements could be expected in almost any Western population not exposed to famine; Rush, 1982.) Why they also included children expected to have high birthweight, and why they lumped both groups together in almost all analyses, is by no means obvious. The likelihood of giving birth to a child over 3,500 grams is not indicative of bad risk, but rather a sign of likely good outcome and very low perinatal mortality (except among diabetic or pre-diabetic women). The results for this group of large babies are not obviously relevant to the aims of the WIC program, which is concerned with low birthweight. If we therefore focus on the few data that are presented for the low birthweight group alone, we find that the mean birthweight of the WIC participants was 2,928 grams, or 146 grams less than controls. On the other hand, given the small numbers in the study, this cannot be considered an adverse finding, but rather easily ascribable to chance variation.

(4) Data analysis:

There were several problems in the analytic strategies of these studies.

(a) Analyses of the effect of duration of treatment on outcome: In the North Carolina study, women who had longer duration of therapy were compared to those who had shorter duration of treatment. No account was taken of the fact that women were thus automatically excluded, for instance, from the group getting six months or more of treatment if they delivered prematurely and were thus not pregnant long enough to meet this criterion. In other words, if a women entered the program in her third month of gestation, she would have had to carry to term in order to qualify as having had six months of treatment, while one who had delivered prematurely would automatically be included in the group with shorter duration of therapy. This creates a strong bias, such that long gestation, with consequent higher birthweight, in the group with longer duration of therapy, may not have been a treatment effect, but an artefact of analysis. This problem could have been corrected either by comparing WIC recipients and controls who began prenatal care simultaneously or, somewhat less well, by controlling for duration of gestation in analysis. Although this latter analysis was not reported, the authors stated that, in fact, the effect on birthweight was entirely accounted for by duration of gestation, (i.e., when gestation was controlled in analysis, there was no longer a difference in birthweight between the WIC recipients and controls.) Thus, if there was an effect on birthweight (which is problematical), it was mediated by length of gestation. (This finding relates directly to problems in the analytic strategy in the Oklahoma City study, noted below.)

The problem in Kotelchuck et al.'s analysis of duration of treatment was similar to that in the North Carolina study. Women with various durations of therapy were compared to their own matched controls. As in the North Carolina study, women with longer gestations had the opportunity to be in therapy longer, and vice-versa. On the other hand, the controls were drawn independent of gestation and each group of cases defined by different lengths of therapy was compared to women whose durations of gestations ranged freely from very premature to term delivery. Thus, we would expect controls to have, on average, a bias towards heavier infants compared to cases with short duration of therapy, and lower birthweights when compared to cases with longer durations of therapy. This indeed occurred. (When duration of gestation was controlled in analysis, there was no longer a significant relationship between WIC therapy and birthweight, even with long duration of therapy.) It is not possible to conclude from this analysis that WIC was not beneficial, since, as described above, the control group was probably better off than those who received WIC.

In the Oklahoma City study, two questionable decisions were made: first, the two disparate study groups (i.e., extreme low birthweight and extreme high birthweight) were combined for almost all analyses, although the characteristics of these groups

were radically different, and also, gestation was controlled in almost all analyses. (This objection may appear confusing, but in this study, there was no reason to control for gestation, since cases and controls were recruited at the same time, unlike any of the other three studies.) Results were thus reported as if gestations were the same (the low birthweight WIC group had shorter gestations with consequent lower birthweight, as noted above). The underlying assumption that would have justified such control for gestation was that we hypothesized that the effect of the nutritional intervention was not at all on duration of gestation, but only on the rate of fetal growth, independent of gestation. On the other hand, this would be exactly the opposite of the assertion of Edozien et al. (and parenthetically the results of our own work in New York; Rush, Stein and Susser, 1980a, b) who found that the effect of nutritional supplementation on birthweight was via longer gestation, and not independent of gestation.

In the Kennedy et al. study, the analysis appears appropriate, but key information that would allow us to judge the study fully are not included in the publication; only limited key characteristics of the study and control groups are presented.

These four are probably the best and most sophisticated of currently available evaluations of the WIC program. Hence, our judgement that the effects of the WIC program are, for now, obscure.

These gaps in information are, presumably, part of the reason that Congress mandated a comprehensive, nationwide evaluation of the WIC program, which we are now executing. Every study had inherent limitations, as will our efforts, and there cannot be any final and conclusive judgement of WIC. However, I suspect the current national evaluations will leave us closer to the goal of understanding how effective WIC has been.

Question 3. Is there any information available to determine whether the WIC food packages are, as intended, supplemental food, or whether such packages merely serve as substitutes for the same quantity of food which was previously purchased? Additionally, what are the possibilities that WIC is "shared" with other household members?

Answer. I am unfamiliar with any current information on the extent to which WIC packages serve as substitutes for food that would otherwise have been eaten, nor on how much is shared with others, presumably within the family.

The effect of WIC benefits on family food buying patterns is, however, a major element of our current study, and it is under the direction of one of the senior scientists at Research Triangle Institute, Dr. Richard Kulka. We expect a quite sound result on this issue. the quantification of sharing with others is more difficult. We will be able to judge the increased dietary intake of women (and, parenthetically, children) who have been enrolled in WIC. The difference between increased dietary intake and the amount of food available from the program will be a combination of substitution of food that might otherwise have been eaten, and WIC food being shared with the rest of the family. Thus, we will be able to specify the increment to diet from the WIC program, and the difference between that and the food allocated. What will be difficult will be to divide that difference between food that is being substituted and food that is being shared, although some estimate will be possible.

There is, however, a strong argument to be made in provision of food for the needy to not demand that the recipient selfishly increase her individual food intake, while others at the same table may be going hungry. It may be possible to identify the person in a family at greatest nutritional risk (although this has not been proven), but it is my opinion that for effective supplementation programs, we probably must consider supplementing to some extent all those who share a common table.

Question 4. Much discussion seems to revolve around whether the WIC program's impact is more one of improved health care or improved nutrition. What are your views on this issue?

Answer. Again, I am unaware of current data to help answer this question. We are addressing it in two ways in our current national WIC evaluation. First, we are studying some 12 to 13 million birth certificates for 10 years, from 18 to 20 states, our "Ecological Study". If effects on mortality are via health care, it is more likely they will be independent of changes in duration of gestation or birthweight, but mediated by changes in pre and perinatal care. These questions are directly testable in the Ecological Study.

Second, in our study of over 6,000 current pregnancies, we have detailed information on both nutrition and health care, and we will attempt to separate the effects of health care, nutrition education, and food. However, this may not be easy, or indeed, possible. There are good data (R. Parker and S. Huffman, personal commu-

nication) that reduction of early childhood mortality depends on having both good nutritional status and adequate health care.

Question 5. You indicated that "in studies of poor pregnant women throughout the world and where research designs are adequate, the range of change in birthweight from nutritional supplementation during pregnancy is consistent and less than we had hoped." This statement appears to be at odds with considerable testimony which has been received over the years. Could you elaborate on your view, and cite specific studies which you feel prove your point?

Answer. I have recently published a review of this subject (Rush, D. Effects of Changes in Protein and Calorie Intake During Pregnancy on the Growth of the Human Fetus. In: Effectiveness and Satisfaction In Antenatal Care, Clinics in Developmental Medicine Series, (Enkin, M., and Chalmers, I., Eds., Spastics International Medical Publications, London, 1982). The review (which is appended) included all the published studies known to me, current to approximately one year ago. While I reviewed many studies with relatively insecure study design, I depended most on several studies from which strongest inference could be drawn: those in which nutritional supplementation was not self-selected. (Comparisons between women who choose not to participate, or who participate only tardily or infrequently in a program, and those who came into the program early are highly suspect: see above). The more secure studies are those in which treatment or control status was assigned by the investigator. At that time, some 15 studies met this criterion. In two of them, birthweights were not reported, and in one, in India, there was an extreme bias against the control group built into the study design. The other 12 studies were performed on nutritionally at risk women in both developed and developing countries. The results were remarkably consistent, across both the developed and developing world. One of the determinants of whether birthweight was improved was the protein composition of the supplements (those studies using high density protein supplements cause consistently lower birthweight by supplementation). Where this was not an issue, and the protein density of the supplements was 20 percent of calories or less, there were eight available studies, seven of which showed birthweight increments of between 16 and 92 grams, with one very small study in India reporting a change of 540 grams. The overwhelming evidence, however, was that the expected increase in mean birthweight was between 36 and 51 grams, with no difference between the developing and developed worlds.

Question 6. Some advocates of the WIC program have contended that the program is unlike supplementary feeding programs in developing countries which apparently are generally conceded to have had poor results. They contend that WIC has been more successful than these supplementation programs because the level of benefits are higher—900 calories per day as opposed to 200–300 calories in developing countries, according to one source. The second reason they cite is that the provision of health care and nutrition education also contributes to the success of the program. How do you assess the WIC program relative to other programs?

Answer. Where dietary intake has been well measured, it appears clear that the pregnant woman cannot eat an additional 900 calories. In several studies, that of Mora et al. (1979) and Habicht et al. (1974), essentially unlimited food supplements were given to impoverished women living under severe economic constraints. Their food intakes did not increase by much more than a few hundred calories. In our own studies, in New York, those taking supplements reported taking 326 calories a day of our high protein Supplement and 233 calories of our balanced Complement, some 70 percent to 74 percent of what was offered. However, 10 percent to 20 percent of this was replacement of regular diet, so that it appears that about 300 calories increment is near the maximum that can be achieved.

It is remarkable how consistent results have been worldwide. One provocative recent study (Prentice et al., 1983) finds that a level of supplementation of a little more than 400 calories a day was achieved in very poor women in the Gambia, and that during the period of high stress (the wet season), when women were in negative energy balance, such supplementation was associated with about a 200 gram increase in birthweight. This important study, though it had no concurrent controls, was done in a population at marked nutritional risk. The caloric intakes of the women were, by any standards, inadequate throughout the year, but only when women were obliged to do heavy agricultural labor, which placed them in marked negative energy balance, did supplements have a dramatic effect on birthweight.

Question 7. How well is the WIC program targeted toward nutritional risk when only about half of the participants are in the highest priority category?

Answer. We are not yet very good at defining nutritional risk, although we are getting better at it. Even with very extensive (and thus, impractical) evaluation, we will miss many women and children who might respond to food supplements, and

include many who won't. Given the state of the art, the criteria for WIC are probably as good a compromise as is possible and practicable, and that half of those serviced are not defined as being at highest risk should not be considered a fault of the program.

Question 8. How do you define the terms "hunger", "malnutrition" and "inadequate diet" and what, if anything, distinguishes one from another?

Answer. Hunger, malnutrition, and inadequate diet are easily defined, although such differentiation is not obviously relevant to program planning. Each term refers to a different standard. Hunger is what an individual feels. Inadequate diet refers to some external standard, i.e., a diet might have inadequate amounts of calcium. Malnutrition is the outcome of inadequate diet: malnutrition suggests that there is some demonstrable physiological abnormality, with symptoms of dietary deficiency, such as cachexia, stunted growth, etc. In other words, if I am hungry, and receive inadequate diet long enough, I will show evidence of malnutrition.

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Senator DOLE. Dr. Popkin.

STATEMENT OF DR. BARRY M. POPKIN, DEPARTMENT OF NUTRITION, UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL, N.C.

Dr. POPKIN. Thank you, Senator Dole.

I am honored to be asked to testify before your committee.[1] I am a professor in the department of nutrition in the School of Public Health in Chapel Hill at the University of North Carolina, and an economist who has been personally involved in nutrition research since the late 1960's when I first prepared a report for the Senate Select Committee on Nutrition on the economic effects of malnutrition in the United States.

With respect to this hearing, I am representing a group of economists and nutritionists and other social scientists wno have been conducting research over the last 4 years on the national school lunch and the national school breakfast program. We have focused on the determinants of participation in these programs and in turn, on the effects that program participation have on the nutrient intake of school age children.

In this presentation, I will focus on the effect of these programs on the nutrient intake of children.

First, let me briefly present our data. We utilized a nationwide food consumption survey that was discussed earlier by Mr. Bode. In 1977–78 there were national surveys done on low-income households, on households in 48 States of this country, and Alaskans, Hawaiians, and Puerto Ricans, and then they followed that up with a 1979–80 low-income household survey.

What is especially noteworthy is that our work therefore represents careful analysis of the issues on a nationally representative basis.

Second, let me briefly describe some of the nutritional problems of school age children. In the 1970's, we still had a significant proportion of children with clinical symptoms of nutritional deficiency. The nutrients most likely to be underconsumed among school age children are iron, calcium, energy, riboflavin, magnesium, vitamin B_6 and vitamin A. Specific statistics are in my testimony that will be in the record.

Let me summarize some of the key findings fairly briefly on our research. Among young children age 6 to 11, we found that school lunch program participation was associated with consistently significant increases in the nutrient intake of all nutrients we studied. Moreover, the magnitude of this effect was often an increase of 20 percent or more of the recommended daily allowance for school age children age 6 to 11.

We also found that nonschool lunch program lunches of these young children provided positive but not significant increases in the nutrient intake for these children, except for some selected nutrients. In other words, for younger children lunches of school lunch nature were much better than other kinds of lunches provided by parents.

Among teenagers, we found that school lunch program participation significantly increased their intake for all nutrients.

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[1] See p. 177 for a position paper submitted by Dr. Popkin.

Moreover, and what is important is that school lunch program participation benefited lower income children more than upper income children. For example, we found that low-income teens participating in the school lunch program consumed 40 percent or more of the vitamin B_6 as a proportion of their recommended daily allowance, but upper income children consumed only 11 percent more. Both results are compared to children who consume a non-school lunch. So we are really talking about consuming a school lunch program lunch versus a regular lunch that they would bring from home or purchase from other sources.

School breakfast program participation provided fewer consistent and statistically significant results, especially when compared to other breakfast consumers. At the same time, any type of breakfast consumption was associated with a large, positive increase in the intake of all nutrients. For the school breakfast program participation, one of its important goals was increased participation in breakfast consumption of any sort. If that were the case, then the school breakfast program would have very important nutritional effects. Otherwise, the effects were important, but not as significant as we find with the lunch program.

In general, we find that national school lunch program and school breakfast program participation was associated with increased nutrient intake of those key deficiency nutrients: iron, calcium, riboflavin, vitamin A and vitamin B_6.

In addition, we looked at the impact of school lunch breakfast and national school lunch and school breakfast participation on the level of the nutrient least adequately consumed by the child as some kind of an indicator of the balance of the diet and the way that program participation affects the balance of the diet. We found that school lunch program participation increased significantly the minimum nutrient adequacy ratio. The nutrient least consumed by the child as the proportion of the recommended daily allowance for that nutrient increased by 12 to 18 percent for NSLP participants.

Moreover, if you took the child and gave them the breakfast program, the child who participated in the breakfast consumed 20 percent more of their limiting nutrients in terms of their need. But if they had not eaten breakfast at all and then participated in the SBP, they consumed more than 50 percent, which talks about how these programs increase somewhat more the balance of the diet. They may take a child who eats a lot of one food and it gives him a more balanced diet and, as a result, really improves their intake of the nutrients they were not consuming.

Finally, I should add that our results found that teenagers, children age 12 to 18, were the group most signifantly affected by the program.

Thank you.

[Questions submitted by Senator Helms to Dr. Popkin and answers thereto:]

Question 1. The Congressional Budget Office reported in 1980: "In general, the nutritional status of children who participate only in the (National School Lunch Program) does not appear to be better than that of the nonparticipating children, but lower-income children receive slightly more nutritional intake than higher-income

children from the program". Does your current research confirm or refute this finding?

Answer. Overall, our findings do refute the CBO 1980 report. We found large and statistically significant increases in the diets of children participating in the NSLP relative to non-participants. These increases in nutrient intake were significant not only for low-income participants but also for high-income participants.

Question 2. Did you consider the instances of obesity among school children participating in the school lunch program? What were the problems?

Answer. We were unable to consider issues of obesity as we did not have accurate weight and height data.

Question 3. Have you found any nutritional benefit from receipients participating in more than one nutrition programs?

Answer. We found the nutrient intake benefits from children participating in both the SBP and NSLP were greater than for children participating in only one program.

Question 4. What would be the nutritional impact on needy children of reducing or eliminating the Federal subsidies for meals served to non-needy children?

Answer. We did not directly examine this question. As an economist familiar with research in this area, I would state that the only way removal of Federal subsidies for full price children would be the following:

First, full price children would pay more and many would drop out of the program. This we found from our research on NSLP participation.

Second, some schools would drop the program because of the smaller number of participants. Other schools would experience an increase in meal costs per participants because of important economies of scale (i.e., reduced costs as the number of meals produced increased). In this latter situation, costs would have to be passed on to the students participating in the program.

Third, reduced price children's participation in the NSLP is very price-sensitive and price increase will reduce their participation.

Fourth, we have found a larger positive nutritional impact for NSLP participants and thus, feel that reduced participation, particularly for the low-income children, would reduce their nutrient intake.

Question 5. What was the nutritional status of children prior to the study on the effects of the school lunch program? Was there any difference in the amount or types of nutrients that they were already receiving?

Answer. We have no data on schools and children before they were provided the NSLP. Our research would indicate important difference in the nutrients consumed, namely that children not participating in the NSLP would have consumed less nutrients and that their diets would have been more unbalanced.

Question 6. Was there any question in your study that nutritional status declined during summer months when some children were not participating in the school food program?

Answer. We have not examined the nutritional status of children during the summer months. We could do this without data but were not funded to do so.

Question 7. What is the improvement, if any, in nutrient intake for students—of all income levels—relative to the Federal subsidy for each income category? In other words, what is the improvement in relation to the Federal expenditures for each income category?

Answer. In general, there was a positive correlation between federal expenditures on the NSLP and increases in nutrient intake. The subsidized full-price children benefited in terms of increased nutrient intake from NSLP participation but the size of their benefit was smaller than that for the lower-income children who participated in the NSLP. Moreover, there was very different dietary intake for the poorest children. Those children with family means of about two-thirds or less of the poverty level benefited the most in terms of increased nutrient intake from NSLP. These are the free-price children with the largest federal subsidy.

Question 8. Was there any difference in the initial nutrient intake for low income children relative to high income children prior to either category's participation in the school lunch program?

Answer. We were not able to examine in our research the diet of children prior to their participation in the NSLP.

Question 9. You point out the benefits to children eating a school lunch relative to those who eat other lunches or no lunches at all, and showed percentages of improved nutrient intake. Are there any of these categories in which nutrient intake was already above 100 percent of the recommended dietary allowances?

Answer. Yes, for selected nutrients, the average school age child consumed about 100 percent of the recommended dietary allowance. This is the case for iron, vita-

min A and vitamin C for both low- and high-income children with all other average background characteristics. Iron intake must be interpreted cautiously since much of this iron may be biologically unavailable for absorption.

Question 10. Much of the research about the effectiveness of these programs seems to revolve around the RDA's—recommended dietary allowances established by the National Academy of Sciences. How firmly are these requirements established as "the" proper level? Some recent research seems to indicate that the RDA's are continually evolving. Some nutritionists have suggested that what is recommended as the norm today may be too much or too little tomorrow. How strongly should we view the results which concentrate on RDA's?

Answer. This is not an issue I can address. It is indeed one of controversy and an area where the USDA and DHHS are involved in extensive research.

Question 11. How do you define the terms "hunger", "malnutrition", and "inadequate diet" and what, if anything, distinguishes one for the other?

Answer. In simplest terms, I would define "hunger" as physiological and psychological responses when immediate foods needs are not met. Associated with hunger, I and others have found, will be reduced concentration and other dimensions of behavior associated with reduced learning. "Malnutrition" can be defined either as an imbalance, a deficit, or an excess of nutrient intake. An "inadequate diet" is one which would be suboptimal and not maintain adequate growth and normal body functions. I would distinguish the three terms on a time dimension basis, namely that hunger is short term absence of adequate diet and will have short term negative behavioral effects. Malnutrition can be used to represent short or long term periods though most nutritionists would want to use it to represent longer time periods and inadequate diet, as defined above, would refer to a longer time frame.

Senator DOLE. Mr. Blount, how do you pronounce your name?

Mr. BLOUNT. Blount, Senator.

Senator DOLE. OK.

STATEMENT OF C. RICHARD BLOUNT, DIRECTOR, MISSOURI WIC PROGRAM

Mr. BLOUNT. Mr. Chairman, Senator Pryor, my name is Richard Blount, just a blunt instrument, and I will try to be that way today.

I am the State director of the Missouri WIC program, and it was my privilege to serve for 3 years as a member of the National Advisory Council on Maternal, Infant, and Fetal Nutrition established by Congress, and it is in these two roles that I have had a unique opportunity, I believe, to witness the success of the special supplemental food program for women, infants, and children.

I do not speak as a research analyst. I am happy to speak just as an administrator today, who looks at it from the standpoint of what is getting the result out in the field as far as program management sees it, and I believe that one of the most significant pieces of evidence, however, affirming the program's effectiveness and worth is an evaluation of the program that was recently completed by the State of Missouri.

I appreciate this moment to share with you some of the background, highlights and conclusions of our study, which is not yet published, but we hope to publish some time in the near future.

As State director, I had been aware of the growth of the programs since its beginning in the fall of 1972. I was aware of the significant impact the program had had upon our public health delivery systems within our State. WIC had increased awareness of public health services. WIC had definitely caused an increase in the number of persons receiving maternal and child health services. Prenatal patients were entering health clinics earlier than

they did before the WIC program, and more frequent visits to the health centers were enabling a greater continuity of care.

WIC was contributing also to the new establishment of health services in areas previously without services in our state.

As a member of the National Advisory Council, I conducted a nationwide survey of other State WIC directors, and the results of that survey indicated that the positive impact that the WIC program was having in Missouri was also being replicated nationwide.

I have carefully reviewed the studies of the program previously conducted by the Harvard University School of Medicine, the Yale School of Medicine, the National Center for Disease Control, the work at Kennedy, Austin, and Timmer in Massachusetts, and Dr. Milton Kotelchuck's study of the Massachusetts program.

As you know, all of these studies attested to the positive results of the program. They documented that women participating in the WIC program do have more successful pregnancies than non-WIC mothers of similar socioeconomic environment. They documented that there is a decrease in the incident of birth weight babies born to WIC mothers which contributes significantly to a reduction in infant mortality, and they documented the children enrolled in the WIC program for at least 1 year experience significant improvement in hemoglobin at inadequate levels as evidence of the program's ability to combat anemia. Further, and I think this is very important, they documented that the program was cost effective.

You might assume that such evidence from personal observations and evidence gathered by others would have been adequate even to convince the skeptics, certainly adequate enough to reassure one who was known to support the program, as I do. Yet I know, as others have said here today, that the methodology, the difficulty of all of those studies, the different control groups and everything still leaves questions to the matter of total merit of any study, and I am glad that the other studies are going on, as the doctor has indicated.

However, as a native son of the "Show Me" State with all of this other evidence already in, I wanted to know. I wanted to be shown what effect the program was truly having in Missouri. Could we measure positive differences in the actual outcome of pregnancies when mothers participated in WIC compared to non-WIC mothers under similar socioeconomic groups?

Could we measure the cost benefit derived from WIC participation?

To answer these critical questions, an evaluative study was commissioned. Two research analysts, Joe Stockbauer and Wayne Schramm, in our State Center for Health Statistics conducted the study using the data available through our WIC software system and the birth certificate data bank in our State.

A specific study of Missouri WIC prenatal participation and its relationship to newborn morbidity and perinatal mortality was made involving 6,560 prenatal participants active in the program during 1980, and we matched those with their offsprings' birth certificates.

To compare the outcome of intervention with non-WIC group, three basic methods of overall analysis were employed: covariate analysis, standardization, and match study group.

It was determined from the study that WIC participants had significantly longer lengths of pregnancy. The mean birth weight increased with increased length of participation. A participation of at least 6 months was needed for positive results.

Low birth weights are reduced by WIC participation. It was further determined that outcome measures were more positive for nonwhites, for those with short space in between pregnancies, for older mothers, and for those with medical complications as well as heavier mothers.

Thus, the outcome of pregnancy results of the Missouri WIC evaluation compared favorably with other nationally recognized studies.

Our study was based on the largest sample, 6,560 participants, relatively, I know, still small compared to what a national study is, but that study was compared to the second largest study of 4,126. Its analysis employed the three methodologies stated as compared to a singular method employed in some of the other studies.

The study was adjusted for more intervening variables than other studies, including the significant variables of smoking and prepregnancy weight. Without question, in my mind, it complemented the other excellent studies have preceded it. All of them faulty, yes, but the preponderance of evidence begins to indicate that there is definitely a trend that is worth looking at.

A secondary study was made evaluating the program's cost effectiveness using medicaid payments and billings incurred within 30 days of birth. WIC participation was found to be associated with a significant reduction in medicaid newborn costs. Our findings indicate that the cost benefits based on actual medical costs incurred within 30 days of birth is 1.0 to 1.42. That is, for every dollar spent to provide the program for the participants studied, $1.42 was saved in reduced medical costs during the first 30 days of the newborn's life. Such a favorable computation does not consider the much greater savings derived through the reduced costs of remedial or chronic care resulting from the prevention of catastrophic illness.

The program has, then, shown itself to be both humane and cost effective. To support it is both good preventive health and good economics, in my judgment. The Congress demonstrated exceptional foresight and wisdom when it established the program. Mr. Chairman, I commend you. I know your personal support. I commend the committee, as well as the whole of the Senate for your continued support of such a worthy program.

Your recent legislative action to increase its funding as a part of the jobs recession relief bill was most timely and justified. We have already implemented procedures which we feel will best utilize the additional funding during this fiscal year.

We welcome the opportunity both to expand and to enhance the program, that it better serve those women and infants and children who are nutritionally at risk. However, in my closing remarks, may I share two areas in which we need your understanding and continued assistance.

First, may I remind you that which you know and which has been testified already here today even by my Senator Danforth from Missouri. I am happy to have him verify the same things.

WIC is still only serving about one out of every three or four persons who are potentially eligible. The National Advisory Council in its last two biannual reports to the President and the Congress recommended the funding for WIC and CSF programs be sufficient to allow the programs that serve at least 50 percent of the Nation's potentially eligible population by fiscal year 1985.

I believe that our study in Missouri, as well as others, plus the need of the country indicates that such minimum funding is desirable and justified. I urge you to respond affirmatively to the council's recommendation.

Second, and last, I applaud the original action of Congress in its foresight to establish the special supplemental food program as an adjunct to health care. It has already been stated here this morning previously, and I concur with that, that WIC has evolved as one of the most important components of preventive health services that includes prenatal and child health care, family planning, nutrition, immunization, dental health and others. The holistic approach has proven to be feasible and effective.

However, the basic health service support systems need adequate resources, particularly in the area of maternal and child health. Therefore, I urge you to provide significant increases in authorizations and appropriations for health care programs serving mothers and children. WIC cannot succeed if the basic service structures are permitted to erode.

Mr. Chairman, Senator, the evidence, I believe, is clear even for a "Show Me" State Missourian. I have been shown in a most convincing way that the special supplemental food program for women, infants, and children established by Congress to combat the health problems of malnutrition both in the 1970's and in the 1980's and in the future has proven its wisdom and the wisdom of its founders, the effectiveness of its benefits. I believe personally that it has earned the right to adequate funding, even in this time of austerity.

Together through the program we can and will make a vital difference in the health and quality of life of women, infants and children. Thank you.

[Questions submitted by Senator Helms to Mr. Blount and answers thereto:]

Question 1. Would you outline what percentage of WIC recipients in Missouri fall into each of the six priority categories? For example, the first priority in the WIC program covers pregnant women, breastfeeding women, and infants determined to be at nutritional risk by a blood test—or some other documented medical condition.

Answer. As of July 15, 1983 there were 59,202 persons participating in the Missouri WIC Program. The priority distribution was as follows:

PRIORITIES

	Persons	Percent
I	16,349	27.6
II	9,655	16.3
III	19,023	32.1
Total	45,027	76.0
IV	5,254	8.9
V	5,984	10.1

PRIORITIES—Continued

	Persons	Percent
VI	2,937	5.0
Total	14,175	24.0
Total	59,202	100.0

Question 2. Do you have any information about the income levels of WIC participants in Missouri?

Answer. Those participating in the Missouri WIC Program are from households with 175 or less percent of the OMB nonfarm income poverty guidelines. Though we do not collect exact income data, our monitoring of the income increments used indicates that the vast majority of the participants would be grouped around the lower income increments.

Question 3. What percentage of WIC families are also on food stamps? What percentage are receiving Aid to Families with Dependent Children?

Answer. Inasmuch as federal regulations specify that participation in such programs as food stamps and ADC should not affect WIC participation we do not track the overlay requested.

Question 4. We frequently hear that there are waiting lists for participation in the WIC program. Do you have precise statistics on what waiting lists, if any, exist in your State? What is the basis for determining whether someone participates or is added to the waiting list?

Answer. Since the additional Jobs Bill and Economy Recovery funding, our waiting list has been radically reduced. Currently, the waiting list is measured in the few hundreds, mainly, at clinic sites were temporary staff shortages result in an inability to provide adequate service during quick growth periods. When waiting lists are used due to inadequate funding, persons are removed from the waiting list to enter the Program based first on priority of need and secondly by date of request for benefits.

To further illustrate the problem of general inadequate funding, let me cite state procedures we have followed. We would first eliminate service to priority VI. This we had to do prior to the additional Jobs Bill funding. That basically removed approximately 5,000 postpartum women from the Program, many of whom were high risk teenagers whose own nutrient stores were low and who freqeuntly have an additional pregnancy with short spacing. Thus, the basis for establishing a waiting list is limited funding with service being denied those who fall into one of the higher priority numbers.

Question 5. What is the basis of your comment that the WIC program is "serving about one out of every three or four persons who are potentially eligible"? Do you have any statistics on this situation in Missouri? How are you defining "potentially eligible"?

Answer. My comment that the WIC Program is "serving about one out of every three or four persons who are potentially eligible" was based on USDA estimates and US census data. The 1982 Biennial Report of the USDA National Advisory Council on Maternal, Infant and Fetal Nutrition to Congress indicated 8,900,000 potential eligible population based on 200 percent poverty level for WIC constituency (p. 10). USDA's estimate was in excess of 3 percent of the total national population. I projected the Missouri potential need by taking 3 percent of the State's 1980 census of 4,917,444 or 147,523 women, infants and children through 4 years of age potentially eligible based on income alone.

Since my testimony in April, I have received additional data from USDA which indicates that my original estimate was far too low. The attached documents from USDA dated July 7, 1983 shows 132,945 children under 5 years of age in households below 185 percent of poverty level.

If potential women were added, the population would be considerably in excess of the previous estimate. I do recognize that there still must be a nutrition risk factor in addition to the income level. However, nutrition risk among the lower income is extremely high.

Senator DOLE. Father Cunningham.

Father CUNNINGHAM. How do you take all of this, Senator? You must have been well fed as a little one to hold such a long attention span. [Laughter.]

And, Senator Pryor—first I want to repeat my admiration and gratitude to you, Senator Dole, for your long service to the hungry and jobless of this Nation, your integrity, and I think your perserverance, demonstrated recently in your successful efforts, together with Carl Levin and Don Riegle in the jobs bill, a source of encouragement to a lot of us. Thank you, sir.

Senator DOLE. I think with the chairman's help, we were able to take care of Focus: HOPE, right? Did we take care of that?

Father CUNNINGHAM. I do not know if there may be another way of taking care of us after I get through with this testimony, Senator.

Senator DOLE. OK

STATEMENT OF FATHER WILLIAM T. CUNNINGHAM, DIRECTOR, FOCUS: HOPE

Father CUNNINGHAM. In olden days, when times were hard and famine struck the land, I think we all remember reading how men of power hoarded their food and took it behind the castle walls, and there they shielded themselves from viewing the miseries of the starving, and now that food is spilling from the wealth of this Nation and only 2½ percent of the citizenry of the United States grows twice as much food as we could possibly consume, we continue to hoard our unbelievable abundance, building bigger barns. Behind the walls are protective callousness, the processes of orderly government, ideological budget systems, and the decisions of well-fed planners. We manage to ignore the most monstrous immorality since Buchenwald and Nuremberg.

Senator Dole, 12 years ago when you served as a member of that sensitive and courageous Senate Select Committee on Nutrition and Human Needs, we came from Focus: HOPE in Detroit with a plea to feed babies and little children. We brought scientific testimony of brain damage, the Churchill report. We talked to you about widespread learning disability, violence-prone behavior, the gangs, affecting over 53,000 Detroit babies at that time under the age of six.

At that time the Department of Agriculture restricted us to food for only 2,651 of those 53,000 hungry children.

In the next 3 years, poverty conditions worsened, but agriculture food storage increased. I recall coming to Washington and asking Dr. Earl Butz, a happy memory, then USDA Secretary, for milk to feed our youngsters in Detroit. He told me the Department was not interested in feeding the poor, and that in fact, he was opposed to the commodities supplemental food program for mothers and babies, and finally Dr. Butz refused the milk.

The very next day I read in the Washington Post how the Secretary had ordered 400,000 gallons of Grade A milk dumped in Los Angeles County. In 1971 Focus: HOPE asked the leaders of both political parties to adopt a statement as part of their political platform. We asked them for this simple statement:

We hold that access to food sufficient for normal health and well-being must be assured in a nation professing the inalienable right to life.

Which I believe is one of Senator Helms' priorities.

Therefore, it shall be our policy to institute programs which effectively guarantee food for all hungry persons who, because of age, ill-health, or economic disability, lack the resources to acquire it for themselves.

To date we have been unsuccessful in convincing the leaders of this Nation of a moral imperative to provide food from our abundance for the hungry.

Last month, Focus: HOPE, which is a metropolitan Detroit human and civil rights organization of 23,000 volunteers, provided nutritious USDA foods to 51,292 babies and mothers. Yes, sir. And in addition to 1,871 elderly poor. This is the largest food program of its kind in the Nation, and it is the most cost effective and free of fraud. Finally, it is a model of cooperation with the private sector and employs thousands of volunteers.

Last year, a USDA sponsored evaluation, yet to be published, called this program "dramatic" in its effects on the health of babies and its savings to the taxpayer. In the light of this achievement which provides three times as much food for the dollar as does WIC or food stamps and makes use of the abundance of farm commodities, one would think that the USDA would extend the commodity supplemental food program wherever it is needed and requested.

On the contrary not only does the Department refuse expansion to areas of great joblessness, but this last year USDA officials denied Focus: HOPE even its lawful administrative expenses, causing our organization in Detroit to subsidize the Government with volunteer moneys in the amount of $420,000.

Focus: HOPE's priority in southeast Michigan is jobs, not food, training men and women, especially minorities, in new, high-tech skills. Our skilled machinist training program is another model of the public-private sector collaboration, and it is dedicated to making Detroit once again the world center for machine tools and production, competing with farm commodities as a major part of our gross national product. People in Michigan and Detroit hunger to be productive, to have jobs, to learn skills, to be somebody, and the toll of joblessness on the spirit and mental health of our people is awesome.

At Focus: HOPE alone we review 2,000 to 3,000 persons each month, applicants for skilled training, and we can afford only to train between 30 and 40. In March the Michigan jobless rate was 17 percent. In Detroit this last month, it was 21 percent across the board, and blacks without jobs in Detroit were 38 percent, and that is the conservative figure of our MESC.

Getting this Nation back to work, helping people become productive is the major task for all of us. In the meantime, with our abundance of food, we must not waste the minds and health of children of parents without jobs or money to properly feed their families.

During this last year, Focus: HOPE's food program for babies increased 30 percent. Thank God we have not had to turn anyone away. There has been no waiting in line. Every day we see more and more young couples coming from clinics and doctors' offices

with a medical statement that their baby must be placed in our program.

Where in the past both parents were working, trying to buy a home, pay car notes, keep up their insurance, utilities, food bills, now one or both parents are without work and often without benefits or unemployment compensation. The few dollars they receive go to pay the mortgage, the utilities, and the first item cut is food.

The result, unless we provide infant formula and food, juice and infant cereal, and something a little bit, for the older children up to the age of six, is high anemia—which registered 38 percent in our city before this program started—learning disability—which has shown improvement in our school system, particularly in our fourth grade testing; irreversible brain stunting, and poor physical and emotional health, a generation of dependent, violence-prone, unproductive human beings.

Shortsightedness and moral dullness will cost this Nation incalculable damage when we once again move toward new job opportunities with highly skilled technology, only to find our young people lacking the capabilities for these opportunities.

Even more frightening is the mounting underclass—and you have got to do more than just visit back home to know what the underclass is—largely blacks and browns, maintained in a culture of hunger, America's subtle, if unconscious, version of genocide.

Senators, this is the time for frankness and some commonsense and some courage. We have the hungry people and we have the food to feed them. Is our Government more concerned that we build hoards of surplus food to balance our national debt rather than feed the families of jobless Americans who helped in many instances to pay for the food?

What we lack in this country is not food or ingenuity or resources. What we lack is the will to do the right thing.

Detroit is one of the most promising, productive population centers in the world. As we make the transition to new skill and productivity levels, we are unwilling to see the young children of our workers wasted. With a relatively minor investment of this Nation's huge agricultural resources, we can assure alert, creative, and productive kids for tomorrow.

The alternative is to extend the underclass of the never to be productive, the waste and burden of a generation that we will have to carry for decades. In addition to the children, the fate of this Nation is inextricably bound up in our treatment of the elderly poor, and I carry with me a report of a pilot program done for the Department of Agriculture 6 months in length, and the report is dated February. You will have the first copy of it.

The elderly poor, so many of whom for want of food languish into confused thinking and enter nursing homes, others dejected and fearful piece together a make-believe meal from a pantry that will never last them through their next check from SSI.

Now, these are the old and the poor who do not want to be a burden, who know their sons and daughters are jobless, who are too proud to beg for food, and who have during their productive years helped to build this Nation. What must be in their minds as they hear that we have twice as much food this year as we can eat?

There is a certain madness in America when we refuse food to the children and turn our backs on the aged, bankrupting the future and burying the past.

Senators, there must be no diversions, no interruptions, no pretentions about this or that priority until we have demonstrated the will to feed America's hungry and to make our people productive again.

Thank you for your time.

Senator DOLE. Thank you.

Senator Pryor?

Senator PRYOR. I do not have any questions, I don't think, at this point. I have one thing. I would just like to say I am very impressed by Father Cunningham's statement. I think it is probably easy for us to sit here in Washington and say we share in your frustration, but I do not think there is any way that any of us in Washington can share in your frustration because we have not seen it. We have not lived with it every day like you have, and I want to commend you for that very courageous statement, Father.

Senator DOLE. I certainly share that view, Senator Pryor, and I am pleased to have Father Cunningham and the other members of the panel here with us today.

Mr. Blount and Dr. Rush seem to get different results from different studies. Maybe they can be reconciled somehow. I think the one thing that Dr. Rush said that interests me is right at the end of your statement. A person may be 1 inch shorter or 2 pounds lighter, but what is going to happen 20 years from now because of WIC or, even 40 or 50 years from now when you get into some of the areas that you mentioned? I guess there is no way at this time to forecast that, is there? I mean, you almost have to wait until the WIC babies become senior citizens to make a judgment, don't you?

Dr. RUSH. No, I do not think so. I think that there is, in fact, some good research on the long-term consequences of childhood diet. There is one program, at the University of Miami in Florida, but effects on adult health have not been as much of a concern as effects on growth.

I do not feel differently from the other speakers about social priorities of our country. I do not think that hunger in this society of affluence can be condoned, but I am convinced that we know far less than has been implied.

I have served on the advisory panel to the evaluation of school nutrition programs, which has just been published, and I attempted to direct their attention to the sodium and fat contents of foods served in the school nutrition programs. The regulations for the school nutrition programs are now anachronistic, in that the criteria of meal content is one-third of the recommended daily allowance. The RDA's are matters of controversy, and can only be best guesses. Malnutrition in America does include problems of undernutrition, along with severe problems of overnutrition for many nutrients. A balanced view suggests that we consider both of these. The very plump anemic baby at the end of the first year may be carrying the burden of long-term disability about which we might be able to do something now.

Senator DOLE. I was going to ask Dr. Popkin a question. Did you consider obesity in some of your evaluations, and what were the problems?

Dr. POPKIN. Let me first just mention that I was the director of a study for the Select Panel on Promotion of Child Health on the nutrition policy option side, and we looked at the major U.S. nutrition programs in 1979 and 1980 before we began to hit the recession. We looked at them to see how they were dealing with the questions of the chronic diseases, the obesities, the imbalance of the diet of the sort that Dr. Rush had mentioned. The two programs that we have the most control over in terms of the content of the diet are the WIC program and the school feeding program, and these have great potential for dealing with these questions to the extent of our present knowledge. We have enough knowledge to begin to do some things, and we have not touched them yet.

In the work that we did, we did not have the kind of data as with the study that Dr. Rush recorded where we knew about the sodium intake in the diet, where we knew about cholesterol intake and the types of fats in the diet, and so forth. We could do that.

The Department of Agriculture is trying to remedy that, and in fact, they are taking a second look at their national evaluation of the school feeding program. One of their major concerns in that is to try to look at some of these nutrients that are related to chronic health problems.

So I suspect in the next 2 or 3 years some of this work will begin on school age children. However, we have not yet used this kind of knowledge in any sense in designing the policies and the regulations of WIC or school feeding. I see no movement toward that.

Part of the problem is that we have now hit the recession, so we look at this issue in 1979 and 1980, and then boom, we were just concerned with cutting the budget rather than fine tuning and revising. So it is going to take a push to look at these issues carefully, however, information is available. We can begin to do that.

Senator DOLE. I was going to ask Mr. Blount a question. Maybe, since you deal with the WIC program statewide on a daily basis—and I know you are probably working with some of the Kansas people, too—if, in fact we wanted to serve more people and could not find more money, are there areas in the WIC program that maybe we should address as far as trying to pick up enough money to supply money for others?

You know, I have got to believe that in everything we do—my office or the WIC program, whether it is the private or public sector—if we squeeze a little harder, we could do more good for more people with the same amount of money. You know, we look at the funding levels for WIC and say, "Oh, you cannot cut $1 out of WIC". OK. Let us not take any. Maybe we want to expand WIC, but if we did either, how can we stretch the money most effectively? There have got to be some areas in WIC that could be addressed. Can you make any suggestions.

Mr. BLOUNT. I would be happy to speak to that, Senator.

First, may I make one comment about conceivably apparent differences between Dr. Rush and myself and the way we look at studies. Certainly I do not feel that there is that much difference. I

do not see the studies, as I stated. I am not a research analyst. I do not see them as showing great significance.

I think that what I am saying is that all of them, including our most recent study, is hitting on the positive side. When he was speaking of 50 to 70 grams, it is about the same thing that we have found in ours.

What we did discover, even in this matter of cost benefit, that the greatest cost benefits seem to be related to decreased incident of low birth weight, and there is about a 15-percent reduction in low birth weight based on the data that we have within our State.

There is still much to be done in the area of study, and I would be one of the first to concur with that, but it does seem that it is moving in a positive way that we want it to.

Let me speak more specifically, Senator, to your last question. If we did not have enough money, and I realize there are limited dollars in every program that we are looking at, is there some way that we could adjust and still meet the neediest of the needy?

Let me share with you what we are doing in Missouri, and it is not too different, I am sure, from either one of my neighboring States, Kansas or Arkansas. Right now we have not served priority 6, the postpartum women, since October 1 because of the shortage of dollars. That was based simply because we felt that of the highest risk, this was, as you indicated, through the regulations of priority 6. With the new jobs relief money, one of the things that we are doing to implement the proper utilization of that money, in my opinion, is that we have reinstated the postpartum women under priority 6 who were at risk because of early conception, 17 or younger at the time of conception being the most needy.

I think what all of the States are doing, State directors and State advisory boards, they are looking at those type of differences that they can make in tightening up the risk criteria.

Another example, we in our own State at one time had an adequance of 33 percent for children. We lowered that to 32 percent, based on some counsel that I was given from physicians who were serving as advisers to me in the program. To do that made a difference of some 2,000 to 3,000 people in the program.

Yes, if we have *x* number of dollars, we will tighten it down. But may I also say in that perspective that the figures that I think are most recent by USDA itself show that there would be enough women and infants together, not counting children from age 2 on. The potential need there would be comparable to what we are serving with the present funding.

So even if we do tighten down, I think I would want to say that it is with the awareness that there will still be people who have equal needs to those in the program, who are not going to be served.

Senator DOLE. Father Cunningham, are there other Focus: HOPE's around the country? Does this project have any satellites, or is it in Detroit only?

Father CUNNINGHAM. No, we have a lot of good friends around. New Orleans has a very good program, also there is a program in San Francisco.

Senator DOLE. Are they pretty much the same type of program?

Father CUNNINGHAM. Pretty much the same.

Senator DOLE. You say jobs are the key?

Father CUNNINGHAM. In our organization jobs is our major project. We also have a legal team. We are a general civil and human rights organization. Feeding comes in as a result of our research in the late 1960's and early 1970's on the nutritional needs of folks, and so we saw that as a part of their rights and began to look at how we could address that right.

Focus: HOPE is a group largely of volunteers, professional and otherwise, and so the number of doctors who have come aboard, we have now 450 clinics in Metropolitan Detroit seeing clients free of charge.

You ask how you can expand present resources. That is a very good question, Senator, and it is, I think, partly at least at the heart of the issue, along with some of the things that I skipped over.

Senator PRYOR. In the clinics that you maintain, Father Cunningham, what relationship do you have with the medical profession and how many members of the profession support you or help in the clinics or are paid by the clinics?

Father CUNNINGHAM. Oh, they are not paid by Focus: HOPE at all. I just went out and talked to a lot of doctors for a lot of years. After a while, many of them said, "We will help," and they send in their little check once a month and contribute and they also take care of our mothers and babies and children. They do that, certifying them for the program, and they do it all on a voluntary basis.

I think the medical community is as much committed to the health of the children and mothers and the general public as is the civil rights organization. So I commend them for doing freely what I do freely.

In terms of their expansion of money though, I want to get to that because I wasn't to show how, without stepping on toes all around here, you take the infant formula, Similac or Enfamil, that we provide through our program, as an instance. The healthy mothers should be breast feeding, but the Similac or Enfamil is 39 cents a can when purchased by the USDA. That is an extraordinary saving. On the street in Detroit, that same can, exactly the same can, of formula sells for between 96 cents and $1.30 a can, and it costs us about 5 cents to deliver. So out of the door that can is about 44 cents.

Now, we can feed three times as many kids with that kind of thing. That is one stretch. Another stretch is a simple one. I have talked to John Bode about having some creative design. If he took the monies that Congress gives him every year for the supplemental feeding program and used those moneys as a passthrough for section 32 and CCC food, then we could move foods through this program using the flex moneys at a time when the country is in dire need and the foods are there.

In many instances, in the case of many foods, it costs less to get them out to the people than it does to preserve them. So we are not talking about budgetary increases at all, and in those times when the Nation begins to revive and we get back into the productive mode and people are feeling good about themselves and able to take care of their health and their kids, then the fund collapses, and it simply becomes again a service fund for special needs.

Senator DOLE. That is the point I made earlier—that there is a significant relationship between the recession to the human needs in some places, like Detroit, where 17.5 percent unemployment was the last count. Is that correct?

Father CUNNINGHAM. Last March, but I am stressing that the unemployment we are looking at is affecting mostly the young families and the little kids, and we have had a 30-percent gain this year in participants in our food program.

You know General Motors has laid off some 80,000 workers in the Pontiac area. The Pontiac area is in one of the wealthiest counties in this country and has no CSFP program, and so we have now petitioned Mr. Broomfield to come in with 15,000 slots, and we will be glad to serve those people.

But when we cite figures for old people, I think, Senator Pryor, you alluded to old people living in homes and so on with others. Our experience with old people, and I have a census of 12,000 poverty elderly people, less than 0.08 percent live in a home with anybody. They are all living alone out of the 12,000 we surveyed. I know that is somewhat dramatic, but that is frightening.

See, when times get hard, even in the old days we had the extended family. That culture is not carrying through today. So we have old people being abandoned. That is the fact, and they are left alone either in a home or the kids rationalize they are going to be OK and taken care of. They are not being taken care of. They keep up appearances, but they are not eating.

Senator PRYOR. Mr. Chairman, you mentioned when the panel came on that it is a differently oriented panel. I think it is true. We have an administrator, two doctors and Father Cunningham here. I think on one end of the table we are talking about grams and vitamins and the necessities for a balanced nutritional diet each day, and what the Father is talking about is absolutely totally jobless, starving people.

Father CUNNINGHAM. Angry and hostile.

Senator PRYOR. Angry and hostile.

Father CUNNINGHAM. Ready to shop by breaking in the store window now.

Senator PRYOR. So, I think one end of the table is talking about one thing, and the other end is talking about the other, and I think we have got two major concerns.

We look at the WIC program, and I understand there is no increase asked for the WIC program, not a penny increase, the same as last year. Father is talking about other interests there. It is a matter of really addressing both of these things.

Senator DOLE. Dr. Rush.

Dr. RUSH. Two short comments. You asked about the WIC program. At the moment there is no regular and automatic feedback from the field on the health effects of the WIC program. Programmatic health data is not received centrally by the Department of Agriculture. The only way the Department of Agriculture has to assess the effect of programs is through such efforts as the one I am involved in. I think that you are entitled to an ongoing system, which informs you how effective the program has been.

When we write our report next year, I know one of our conclusions: Program evaluation should be an ongoing component of the WIC program.

Second, you may not realize that the caloric cost of breast feeding is about twice that of pregnancy. The regulations should reflect this geat nutritional stress in the lives of postpartum women, especially the adolescent who still has her own needs for growth. Breast feeding is better and should be promoted. The incidence of infection is lowered because the resistance to infection is better and breast milk is less likely to be contaminated than formula. Also growth, is better.

Some of the programmatic elements ought to be reviewed, as should the goals of the program. However, for an overall assessment we need to know more than you are going to find out from us today.

Senator DOLE. Well, I appreciate your testimony very much, and I think this panel has been very helpful. Our problem is that we do not know anything that you know a lot about, and we are sitting here making judgments on how much we will spend for each program. We make a lot of judgments based on less than total information. I do not suggest we will ever have it all, but this is the purpose of this hearing—to get a mixture of opinions, so that we can make more informed policy decisions.

If, in fact, we can reduce the cost of a program in one area, we ought to reduce it if it does not impact severely on someone. We may want to take some of that savings and put it into the WIC program or some other program. That is sort of my approach to any problem of this nature.

We appreciate your input very much. We will reconvene at 2 o'clock. If any of you want to come back again to participate with the regular panel, we will be happy to have you back, but I think you are probably happy to be finished. Thank you.

[Questions submitted by Senator Helms to Father Cunningham and answers thereto:]

DEAR SENATOR HELMS: With apologies for the delay, I am happy to respond to the additional questions for the record which your July 14 letter posed in connection with my Nutrition Subcommittee testimony of April 6. I have had appropriate staff members carefully research the data you requested, and will provide our responses immediately after repeating each question.

Question 1. As I understand it, Focus: HOPE operates a fairly large commodity supplemental food program in Detroit. What percentage of recipients also receive food stamps? What percentage are also receiving Aid to Families with Dependent Children? What percentage are participating in the Child Care Food Program?

Answer. Our records indicate that 78 percent of July, 1983 recipients also recieve food stamps.

We are not able to identify the exact percentage of recipients also receiving AFDC, since income verifications procedures require individual but not aggregate records specifying source of income. Our best estimate, based on the day to day experience of staff members assigned to income verification, is that 75 percent of recipients also receive AFDC.

No recipients are participating in the Child Care Food Program. No facilities qualifying for that program are permitted to certify recipients, nor is any child certified unless represented by and resident in the private home of the parent or legal guardian.

Question 2. Would you outline the percentage of your participants that are pregnant mothers, infants, and children?

Answer. These percentages among July, 1983 recipients were as follows:

	Percent
Mothers	18
Pregnant	4
Post-Partum	14
Infants	13
Preschool Children	69

Question 3. Does the WIC program operate in the same areas that CSFP operates? What is the difference in eligibility for commodity distribution versus WIC participation? What is the relative size of the CSFP program compared to the WIC program in Detroit?

Answer. The WIC programs in Detroit, remainder of Wayne County, Macomb County, and Oakland County operate in the same areas that CSFP operates. Prevention of duplicate participation is assured at the state level through a computerized cross-reference of recipient files. Historically, the CSFP program preceded WIC by several years.

Basic eligibility criteria for WIC and the CSFP are very similar, both requiring assessment of nutritional risk by a health professional and documentation of low-income. Differences between the programs pertain to length of coverage, quantity and variety of foods in the supplement, form of distribution, administrative overhead, and cost to the tax-payer.

The CSFP program in Detroit averaged 48,614 monthly recipients during the first nine months of fiscal year 1983, with the highest participation (51,292) in March, 1983. Authorized caseload was recently increased to 57,000 and will expand to 72,000 with the opening of additional food centers in Pontiac and western Wayne County this fall. The Detroit WIC program to our knowledge served 22,000 monthly recipients during this same period, and has also received an expansion of authorized caseload to 29,000.

Question 4. In the portion of your program that operates the pilot project for the elderly, what percentage of recipients also receive food stamps? What percent also participate in congregate feeding programs?

Answer. On the Participant Profile questionnaire voluntarily completed by almost all elderly recipients, 48 percent stated that they receive food stamps.

We are not able to determine an exact percentage of elderly recipients who also participate in the congregate feeding program, but for several reasons believe this to be an insignificant number. Research preparatory to the elderly pilot indicated that Detroit's congregate meals program could accommodate only about 10 percent of the eligible seniors. In view of the vast numbers of elderly in the Detroit area below the poverty level (over 100,000) unserved by that program, and the pilot's accent on service to the "most needy", our design excluded as certifying agencies any facilities or organizations which already provided congregate meals. Also, because of the small numbers able to be served by the pilot, certifying agencies were advised and intrinsically required to select seniors with access to the fewest resources, including congregate meals.

Question 5. Does Focus: HOPE provide any food assistance that is non-federal—that is, is there a private, non-profit program?

Answer. Although Focus: HOPE operates no on-going emergency food project in connection with the CSFP or otherwise, occasional contributions of foodstuffs or food gift certificates are distributed to needy families not eligible for the CSFP or to elderly on the pilot project waiting list.

For approximately twelve years, Focus: HOPE has organized a Family to Family project during the Christmas holidays. Individual families as well as groups from churches, schools, corporations, neighborhoods and other organizations collect or purchase food, clothing and gifts for needy families. Volunteers help coordinate the project and in many cases package and deliver the holiday basket.

Between Thanksgiving and Christmas, 1982, Focus: HOPE and WDIV-TV, the local NBC affiliate, jointly sponsored a project called "Gift For All Seasons—Share With a Senior." The station devoted approximately 200 hours in staff and air time to highlight the isolation and hunger of the elderly poor and to encourage donations through Focus: HOPE. The public was asked to share by adopting seniors for Christmas, personally delivering food and gifts to elderly on the pilot program waiting list; or by making a contribution of food or funds to be distributed by Focus: HOPE; or by volunteering to help handle incoming calls, package and deliver donated food, and assist with the massive coordination effort to link needy seniors and donors. Altogether, the project made direct and substantial provisions of food, gifts and companionship to 5,510 elderly.

Senator Helms, I trust that the above information adequately responds to your questions and would gladly provide further detail upon request.

[Whereupon, at 1:08 p.m., the subcommittee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

Senator DOLE. We are happy to resume our hearings and our first witness this afternoon is Dr. Michael McGinnis, Deputy Assistant Secretary for Health, Disease Prevention and Health Planning, Department of HHS.

Dr. McGinnis, your entire statement will be made a part of the record. If you could sort of summarize the highlights, and then wait for a few minutes, we will have a chance to listen to some of the other witnesses. This may remind me of some questions I should have asked.

STATEMENT OF DR. MICHAEL McGINNIS, DEPUTY ASSISTANT SECRETARY FOR HEALTH (DISEASE PREVENTION AND HEALTH PLANNING), DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. MCGINNIS. I want to thank you for the opportunity to appear before the subcommittee today.

Nutrition status monitoring is a priority of the Department of Health and Human Services. There are several colleagues who are here with me I would like to introduce. Dr. Allan Forbes is the Associate Director of the Food and Drug Administration for Nutrition and Food Sciences. Next to him is Dr. Frederick Trowbridge of the Centers for Disease Control. Dr. Trowbridge is Director of the Nutrition Division of CDC. Next to him is Dr. Vince Hutchins, Director for Maternal and Child Health of the Health Resources and Services Administration. To his right is Mr. Robert Murphy who directs the Health and Nutrition Examination Survey in NCHS.

At the conclusion of my comments, each of these individuals and myself will be available for questions.

If I may I would like to submit the testimony formally for the record and speak a little less formally from notes and some of the visual aids that I have brought with me.[1]

While the major focus of our discussion here today is on nutrition status and monitoring, I realize that this committee may not be quite as familiar with the nutrition activities of the Department of Health and Human Services as with other activities in nutrition around the Government, and I would like, if I may, to spend the first few minutes reviewing those activities very briefly, using these charts which I have brought with me.

The first chart reviews some of the highlights of DHHS nutrition initiatives: nutrition research; establishment of clinical nutrition research units; establishment with USDA of the national nutrition monitoring system; dietary guidelines for Americans; specific measurable objectives to be achieved by 1990 in prevention generally with a special focus on nutrition; a sodium reduction program; a review of infant nutrition; and a fairly large array of activities in nutrition.

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[1] See p. 190 for the prepared statement of Dr. McGinnis.

The activities are coordinated by a nutrition policy board, which we have in the Department of Health and Human Services. There are six standing subcommittees for the policy board: one for nutrition research; one for nutrition monitoring; one for nutrition education; one for nutrition services and training; one for food safety, quality and regulation; and one for international nutrition. I will run through very quickly the activities in each of these areas.

In human nutrition research, in fiscal year 1981, which is the most recent year for which we have complete data, we had according to NIH estimates about $160 million worth of nutriton related research. Ninety-three percent of that was through the National Institutes of Health, but some of our other agencies participated as well: the Centers for Disease Control, the Food and Drug Administration, the National Center for Health Statistics and Alcohol, Drug Abuse and Health Administration. These are coordinated through an NIH nutrition coordinating committee, and coordinated with other agencies, such as USDA, the VA, the Department of Defense outside of our Department, through an OSTP Joint Subcommittee on Human Nutrition Research.

Nutrition education is, of course, also a priority in the Department both with respect to providing information to the general public and with respect to providing information and education for our client populations. "Dietary Guidelines for Americans" serves as a basis on which a number of these activities are undertaken. We have also undertaken a joint inventory with USDA of the various nutrition publications and so forth that are used by both departments, and we have compiled those inventories jointly so that we have a better understanding of what each of us is doing.

The sodium awareness campaign I mentioned earlier has been a prominent focus of our nutrition education activities. We do a number of consumer surveys. Food labeling is, of course, a very important vehicle potentially to information on nutrition to various consumers, and we have a number of public service information campaigns through the National Institutes of Health, the Food and Drug Administration, as well as the Assistant Secretary for Health's office, including our healthy mothers, healthy babies campaign.

And finally, through our administration on aging programs for the elderly, we offer nutrition information to that population.

Nutrition services and training at DHHS is an active area as well. What is listed here are some of the legislative authorities that mandate our nutrition services activities. I am not going to go through those in detail, but note that the nutrition services include meal programs, nutrition education, screening and treatment where problems are noted.

As an example, our Health Resources and Services Administration serves low-income populations at community health centers, about five million people, and nutrition services are available through those health centers.

The head start program has an active nutrition component, and indeed, the nutrition component of the head start program has grown from some $48 million in 1980 to about $60 million in 1983.

Our Administration on Aging also has active programs targeted to the elderly and through the congregate meals programs, as well

as the home delivery meal programs, those programs have grown from about $320 or so million in 1980 to about $380 million in 1983.

The next category is food safety and quality. At the Department of Health and Human Services the activities included here are generally implemented through the Food and Drug Administration and through regulations and guidelines for food processing and packaging, policy development on the way that we are to oversee those activities, and surveillance and review to insure that the policies and regulations are, indeed, enforced.

Finally, before I get to nutrition monitoring, we have also a prominent international nutrition agenda in the Department. This is an agenda which is implemented through a series of bilateral agreements, as well as through our assistance to multinational organizations, such as WHO, the Food and Agricultural Organization, and UNICEF.

Now I would like to turn, if I can, to nutrition monitoring at the Department. This is a list of some of the tools that we use in our nutrition monitoring efforts, and I will run through them quickly and then go to the conceptual framework within which these various tools are applied.

Nutrition monitoring at DHHS has a number of important components. A few of them are listed here. At the heart of it is our national health and nutrition examination survey, HANES, but in addition, there is a nutrition status surveillance system run out of the Centers for Disease Control and targeted to low-income groups; a total diet study that FDA supports; the food label and products surveillance study that FDA supports, as well as a multipurpose annual survey of food shoppers through FDA.

The Health Resources and Services Administration, as I mentioned earlier, provides nutrition screening through their community health center programs. And, in an effort to look at all of these activities, the science base for the various activities, we sponsored a year ago a conference at NIH on assessment of nutritional status, which was printed last year in the American Journal for Clinical Nutrition.

Now, the conceptual framework within which these activities operate is noted here or the essential elements are noted here. This is, in effect, a representation of the national nutrition monitoring system which was jointly developed by USDA and our Department and focuses on what is done in five major categories: health status measurements, food consumption measurements, food composition measurements, dietary knowledge and attitude assessment, and food supply determinations.

Senator DOLE. Do you have copies of those?

Dr. MCGINNIS. Yes, we do right here.

Senator DOLE. It might be helpful for the panelists, and I would like to have one, too.

Dr. MCGINNIS. I will just pass them down.

What I would like to do now is go over each of these categories in slightly more detail, not belaboring it, but nonetheless reviewing some of the critical features.

First, in the health status measurements area, that is in effect the physical and biochemical measurements of nutritional status. Again, HANES is our core vehicle in this area. HANES sponsors

physical examinations, anthropometry, blood cell determinations, blood and urine biochemistry, X-rays, functional assessments, and so forth in looking at the impact of nutritional habits on the American people.

Other activities within the National Center for Health Statistics are also relevant, including the vital statistics system, the health interview survey, the natality and fetal mortality surveys, and these are surveys that are done periodically.

In addition to these periodic vehicles under determinations of health status, we have through the Centers for Disease Control developed a capability for continuous monitoring of certain key indicators of nutrition status for high risk pediatric and pregnant populations, in effect, the clients of WIC and our health services programs, which use data from now 32 States on height, weight, hematocrat and hemoglobin to assess the trends in those populations. I will review those data in just a few moments.

So what we have is through our HANES a vehicle to assess broad trends in nutritional status through the CDC effort an early warning system for problems that might be occurring in specific low-income groups.

Second, in food consumption measurements areas, we have a couple of tools. The HANES again employs a 24-hour recall as part of its survey instrument. The total diet study through FDA and FDA's specific surveys on prominent issues in nutrition also provide food consumption information.

In food composition measurements, our principal vehicle is the work of the FDA through the surveillance, statistical sample surveillance of labeled food products that I mentioned earlier, as well as through the total diet study.

In dietary knowledge and attitudes assessment, the FDA does the annual survey of shoppers. We do not get into food supply determinations. USDA is the sole operator in that area. They share activity with us in several of the other areas.

I would now like, if I can, to turn briefly to what we know about the nutritional status of low-income Americans, which is the special focus of the hearing today. The first question we have to ask is: How does the low-income population differ from the general population in terms of nutritional status?

Our dietary intake data from the two HANES surveys that have been done to date, from 1971 to 1974 and 1976 to 1980, indicate that, in general, low-income Americans consume fewer grams of food and have less variety in their meals.

With respect to specific nutrients, low-income people appear to consume lower levels of iron and vitamin A. On health status indicators, the physical and biochemical measures, there seem to be relatively few differences, but two may be of special interest. One, obesity: Obesity is a persistent problem for Americans, and particularly among low-income women. Among women, the lower the income, the greater the obesity problem. Interestingly, though, for low-income men it is the reverse.

Anemia is another area that is of prominent interest, and we find that there are lower hemoglobin levels in lower income groups for the ages 3 to 74 for both sexes throughout that age span.

The second question we have to focus on in assessing this area is: What have been the recent trends in nutritional status of low-income populations? For children under two, CDC's nutritional status surveillance system indicates that over a 7-year period, from 1975 to 1982, the prevalence of growth stunting declined by about 10 percent and the prevalence of overweight declined by about 11 percent.

Also over the 7-year period, the prevalence of anemia declined from about 9 percent to about 7 percent of that population—the low-income child and pregnant women population.

All ethnic groups shared in that decline. Since 1980, there has been a modest but consistent continuation of the downward trend for each of the age groups and along each of the indices that were assessed.

In considering these particular data, we have to bear a couple of things prominently in mind. First is that they are not representative of the general population, but only of those lower income groups that are specifically served by the service centers; and second, the data are not received from all States. Now, they are received voluntarily from 32 States who participate voluntarily in the program, and hence, as new States enroll in the program over time the base line of the enrollee pool may shift, and it affects some complications in interpretation.

Nonetheless, the information does provide, I think, important signals on the prominent trends; and steps are being taken now to improve each of our surveillance activities.

In summary, Mr. Chairman, from an evaluation of the data currently available, we cannot conclude that there is any decline in the nutritional status of Americans. It is nonetheless important, indeed essential, that we not relax our vigilence in attending to the special needs of vulnerable groups.

I want to thank you again for this opportunity and mention that my colleagues and I will be happy to answer any questions that you have.

Senator DOLE. I wonder if you might be able to wait just a few moments. I would like to hear Dr. Milton Kotelchuck from Harvard and Dr. George Graham from Johns Hopkins. That may lead to some questions.

[Questions submitted by Senator Helms to Dr. McGinnis and answers thereto:]

Question 1. Would you outline the background and purpose of the "Healthy Mothers/Healthy Babies" campaign?

Answer. "Healthy Mothers/Healthy Babies" (HM/HB) is a public education effort being carried out through a partnership among government, professional, and voluntary organizations and agencies. This public information program aims to increase the awareness of pregnant women, particularly those at high risk, about the importance of good health for themselves and their unborn babies. The purpose of the coalition is threefold:

To provide information promoting healthy behavior to pregnant women and women planning pregnancy; to increase their understanding of health risks and the importance of taking personal responsibility for their health and the health of their infants; and to motivate them to take action to protect their health, obtain regular prenatal care and seek other counsel or assistance when needed.

One of the U.S. Department of Health and Human Services Health Objectives for the 1980's is to continue to improve maternal and infant health and reduce infant mortality to below 9 deaths per 1000 live births by 1990. In carrying out this objective, the Department is working with other public and private agencies in the HM/

HB coalition by providing the means for member organizations to work toward this goal. A list of Coalition Members is attached.

Achivement of this goal depends largely on provision of high quality prenatal, obstetrical and neonatal care; preventive services during the first year of life; professional education; and broad public information activities aimed at pregnant women and their families. While these elements all require a long-term commitment of interest and resources, HM/HB has been organized primarily to work toward improving the quality and reach of public education on prenatal and infant care. Coalition members agree to work toward this goal both through the activities of their respective organizations and through collaborative efforts undertaken by the coalition.

An important component of the HM/HB campaign is a set of materials designed to promote maternal and child health. Campaign materials deal with such important topics as nutrition, breastfeeding, smoking, alcohol use, the need for women to continue seeing their physician during the course of pregnancy, and the use of drugs and over-the-counter medications during pregnancy. Materials developed have included newspaper columns, radio public service announcements and a series of six posters and accompanying information cards developed for use in public clinics, maternal and child health centers, WIC distribution sites and other settings where high-risk women particularly targeted for these materials are likely to be exposed to them. Plans for a prepackaged television show on prenatal care suitable for local origination are now underway and a national promotion campaign for health professionals will begin this Fall.

In September of 1981, a national organizational meeting was attended by representatives of more than 36 national voluntary, professional and government organizations who gathered to establish the goals and priorities of the coalition and to discuss methods of collaborating and sharing information. A 2nd National Meeting is being held this September to reinforce the coalition's objectives and to give direction and motivation to the future of coalition activities. It is expected that more than 70 groups will be represented at the 1983 Meeting.

Question 2. (a) Do you maintain any statistics on what percentage of the American people would be defined as "malnourished" or "undernourished"?

Answer. We do maintain statistics on the nutritional status of the American people. Through a variety of programs that comprise the National Nutrition Monitoring System, the Department provides information on aspects of under-untrition, over-nutrition, and imbalanced nutrition. This information is compiled for many purposes which include:

Providing the foundation for the maintenance and improvement of the nutritional status of the population and of the quality and healthfulness of the national food supply.

Providing data for evaluation of implications of changes in agricultural policy related to food production, processing, and distribution which may affect the nutritional quality and healthfulness of the food supply.

Providing baseline information on nutritional status and to identify high risk groups and geographic areas, as well as nutrition-related problems and trends, that require intervention activities.

(b) What is the correlation between income level and nutritional health?

Answer. A person's nutritional status is determined by a complex interactions of variables that include aspects of health status, metabolism, genetics, dietary intake, food composition, and energy balance. Relating one variable such as income to nutritional health is not always possible because so many factors are involved simultaneously.

In the 1970's, the National Health and Nutrition Examination Surveys, (NHANES), over 40,000 persons were examined and no cases of severe nutritional deficiences unrelated to current medical problems have been found. Examples of findings from NHANES that have been related to level of income are:

Anemia was a problem among young children, women of child-bearing capacity, and in the low socioeconomic population.

Lower income levels have been associated with a higher prevalance of obesity for women, but higher income men have higher rates of obesity.

Detailed analyses of DHHS, USDA, and other sources of nutrition data are planned during the next year for a report to Congress in 1984 on the nutritional status of the U.S. population. This is part of the Implementation Plan for the National Nutrition Monitoring System submitted to Congress in 1981.

(c) What percentage of the American people would be defined as "overnourished"?

Answer. Excess weight or obesity is a major health problem affecting people in all age and economic groups. Its causes are primarily related to excessive consumption of foods in relation to expenditure of energy. There is evidence that obesity may be

a risk factor for several diseases, cardiovascular, hypertension, and diabetes. From the National Health and Nutrition Examination Survey, 1976-80, it is estimated that 46 million Americans, 20-74 years of age, weigh ten percent more than their desirable weight. Twenty percent or about 27 million persons, 20–74 years of age, exceed their desirable weight by twenty percent or more.

Obesity is not the only concern with "overnutrition". Some persons have medical problems with iron overload and it is important that they restrict their dietary iron. Consumption of dietary supplements that provide megadoses of nutrients can cause medical and nutritional problems. Hence, the National Nutrition Monitoring System has activities that monitor nutrient labeling of goods and problems associated with consumption of fad diets. These problems cross income groups.

Question 3. You outlined some findings from nutrition data collected between 1976 and 1980. Do you have this information broken down by income group? What are the characteristics of low-income Americans with regard to obesity, iron difficiency anemia, and so forth?

Answer. The data systems of the National Nutrition Monitoring System are sources of information about nutritional status by income group. Lower income levels were associated with a higher prevalance of obesity for women, regardless of age. Black women, regardless of income had a higher percentage of obesity than white women did.

Higher income level was associated with higher prevalance of obesity of men. Only in the oldest age group 65–74 years was income level less consistently associated with prevalance of obesity.

Iron deficiency anemia remains the most common factor of nutritional deficiency in most populations. Data from NHANES, conducted by the National Center for Health Statistics, are available on iron deficiency. The dietary iron intake values consistently fell below standards in all age, race, and income groups, with the greatest problem among the young children, women of child bearing age, and the elderly. These findings confirm earlier results of the Ten-State Survey and the Preschool Nutrition Survey, and are supported by data from the Centers for Disease Control's Nutrition Surveillance Program.

Based on biochemical indicators, iron deficiency is quite common, particularly in young children, pregnant women, the elderly, and in lower socioeconomic populations. As high as ten percent of the lower socioeconomic pregnant women, five percent of the lower socioeconomic infants, and an unknown proportion of the elderly are afflicted with some degree of relative iron deficiency.

Detailed analysis of the data are underway to examine other aspects of nutritional status by income levels.

Question 4. Do you have any specific information to indicate, one way or another, the effectiveness of expenditures for nutrition education? Is there any data to suggest that children (or adults) actually will change their eating habits based on nutrition education?

Answer. Nutrition education is an important component of our overall nutrition strategy. Dietary behavior plays a prominent role in America's major sources of disease: heart disease, stroke, cancer, diabetes. As a result of nutrition education programs to date, we've seen some important improvements in public awareness of the role of salt in high blood pressure and of fat and cholesterol in heart and vessel disease. These changes have contributed to the remarkable 42 percent decline in stroke deaths and 25 percent decline in heart attack deaths during the 1970 to 1980 decade. The scientific community agrees that additional studies are needed to determine the best way to assure long term or life long improvements in individual food habits behavior. Certainly expenditures for nutrition education to date have helped us get to this point in our recognition of the science of nutrition education. We are in a better position now to begin to clarify the behavioral aspects of selected diet, nutrition, and health relationships; delineate the behavioral contribution to future prospects for the prevention of serious and widespread diet-related diseases; and facilitate strengthening the motivational and behavioral sciences in areas of food habits research.

Several recent studies have shown that individuals have benefitted from instruction-counseling about improved nutrition practices: specific gain in attitude, awareness, knowledge and understandings of basic nutrition concepts and principles related to diet, nutrition, and health. For example, in 1982 the chief nutritionist with the West Virginia Department of Education has prepared a summary of the National USDA-administered Nutrition Education and Training (NET) Program. Information gathered by this nutritionist show positive changes in attitudes towards foods and nutrition and health; increase knowledge of basic nutrition concepts and principles; and behavioral change as measured by decrease in plate waste in school meals.

With respect to more positive attitudes about foods and nutrition, Washington State indicated significant improvement in communication among food service persons, principals, teachers, and students; and California reported that positive attitudes among students improved by some fifty percent when they participated in NET Program activities.

With respect to knowledge gain, Tennessee teachers and food service personnel reported a mean gain in nutrition knowledge. Elementary school children scored higher on nutrition knowledge than their peers who were not involved in nutrition education. With respect to food habits behavior, California had a 21 percent improvement in the selection of food by students, teachers, and cafeteria personnel; Oregon showed reduction in fat and sugar content of school meals; and Arizona reported an increase in the willingness of children to try new foods in the school cafeteria. Using plate waste observations, as a result of nutrition education activities Arizona was able to decrease plate waste by as much as 45 percent in some schools.

To assist in future research efforts, the OSTP issued a report in June 1982, titled "Nutrition Education Research and Professional Personnel Needs for Nutrition Education of Professionals and the Public." It cites four areas of research needs:

Improving understanding of dietary practices, food consumption practices, and their determinants; developing and refining methods for informing and educating the public about the relationship of nutrition, dietary practices, and health; improving the effectiveness and efficiency and nutrition education programs; and expanding research training and manpower development in nutrition education.

Question 5. One witness testified about a medical research team at Boston City Hospital which, he stated, has recently found "substantial growth failure" among 400 children in the pediatric walk-in clinic. The Department of Health and Human Services provided information on national statistics in response to an earlier hearing which indicated, as I understood it, that there had been no deterioration in several key indicators which would identify growth failure. Would you review the data maintained by the Centers for Disease Control, and any other relevant information, and comment on the latest evaluations? Also would you list, for the record, those States that are represented by the information collected by the CDC?

Answer. The data tabulated cannot be taken as representative of U.S. children generally, but they do represent the result of initial, screening examinations conducted on approximately 200,000 infants and children per year from relatively low-income families enrolled in the WIC program and other publically-supported service delivery programs. The data reflect the nutritional status of children at the time of entrance into the programs and will not, therefore, reflect any subsequent impact of these programs on nutritional status. Since the data represent only those children who presented themselves for screening at health programs, these data will not reflect the nutritional status of children who, for whatever reason, are not served by these programs.

The data were submitted from the 28 selected States and the District of Columbia which were participating in the CDC Coordinated Nutrition Surveillance System during the period January 1976 to December 1982. The findings indicate that the overall prevalence of linear growth stunting (low height-for-age) and of overweight (high weight-for-height) has declined slowly over the seven year period. The prevalence of growth stunting declined from approximately 9.5 percent to 8.5 percent and the prevalence of overweight declined from approximately 8.5 percent to 7.5 percent during this period. The decline in prevalence was observed principally in infants under 2 years of age. Older children showed little consistent change in the prevalence of abnormal growth indicators. The four ethnic groups with sufficient representation in the surveillance system data base to be evaluated statistically (white, black, Hispanic, and Native American) all shared in the decline in prevalence.

The prevalence of low weight-for-age and low weight-for-height remained at or below the five percent level which is "expected" to occur, since the cut-off for determining low values is the 5th percentile of the National Center for Health Statistics reference population.

Similar evaluation of trends in anemia prevalence based on initial screening results in approximately 115,000 children per year from states also indicated an overall downward trend—from approximately 9 percent to approximately 7 percent prevalence over the 7 year period.

Trends in anemia were generally more variable than those in linear growth and overweight, but all ethnic groups showed the same overall pattern. Age group differences in anemia trends were not consistently observed.

The standards used to evaluate anemia prevalence are the 5th percentile forage and sex for hemoglobin or hematocrit, based on data from the 1971 National Health and Nutrition Examination Survey (NHANES I) conducted by the National Center

for Health Statistics. Infants under 6 months of age are not included in the evaluation of anemia trends since data from the NHANES survey are not adequate to estimate precentile cutoffs for this age group.

The states participating CDC Coordinated Nutrition Surveillance System for the period described are as follows:

Alabama, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Florida, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maine, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, North Carolina, Ohio, Oregon, Rhode Island, Tennessee, Vermont, Washington, and Wisconsin.

[Questions submitted by Senator Dole to Dr. McGinnis and answers thereto:]

Senator DOLE. In March 1978 the then HEW and USDA submitted to Congress a proposal for the development of a national system. It was called "A Comprehensive Nutritional Status Monitoring System." But in October 1981, when you delivered the completed plan for implementing this proposal, the paper was called "A Comprehensive National Nutrition Monitoring System."

Why did you delete the words "nutritional status" from the title? And what does this mean with respect to our getting a handle on the nutritional status of the population?

Dr. MCGINNIS. The title change better describes the activities included in the system. The National Nutrition Monitoring System includes many activities closely related to the population's nutritional status as well as assessment of nutritional status:

The assessment of the composition of foods (USDA's National Nutrient Data Bank and DHHS's Total Diet Study and labelled food surveillance studies).

Dietary knowledge and attitudes assessments (Public Attitudes Survey by DHHS and the Nationwide Food Consumption Survey (NFCS) by USDA).

Food supply determinations (food disappearance data developed by USDA).

Food consumption measurements (Food Usage Survey sponsored by DHHS, NFCS conducted by USDA, and NHANES conducted by DHHS).

Nutritional status assessments (DHHS's NHANES and the Coordinated State Surveillance System, and others).

To understand population's nutritional status and trends in nutritional status and to affect change if it is deemed necessary, we must know the composition of foods, why people make special food choices, and the dietary knowledge and attitudes of the public. Broadening the scope of the system to include variables related to nutritional status strengthens our ability to understand and affect the nutritional status of the population.

Senator DOLE. We understand that neither DHHS nor USDA has given Nutritional Status Monitoring System (NSMS) high priority, and that everything is behind in schedule because of "sheer neglect." What is the exact stage of activity on these items if the system is to be operational by 1987?

Dr. MCGINNIS. Within funding and staffing limitations the National Nutrition Monitoring System has been one of the Department's top priorities. A broad range of nutrition data are being collected, processed, and analyzed faster than in previous years. The National Center for Health Statistics (NCHS) is producing information on infant mortality, low birth weight infants, breastfeeding, and nutritional status of the general population. The Food and Drug Administration is collaborating with NCHS to analyze NHANES data with respect to food fortification issues. The Centers for Disease Control are expanding the Coordinated State Surveillance System (CSSS) to cover more States and special population groups. Release of all this information includes both publications and data tapes suitable for further analyses.

The Joint NHANES/NFCS Data Users Conference is on schedule for this fall. The Food and Nutrition Board (FNB), National Academy of Sciences, National Research Council held a preliminary meeting to organize and focus the Conference on important NHANES and NFCS issues that users from government, academia, and industry should address: the needs for data, the comparability and compatibility of the two surveys, and ways to make the data more useful. The FNB report will be available in time for planning NHANES III in 1987. The original dates for the Conference mentioned in the 1981 Implementation Plan had no practical significance in terms of 1987 implementation.

It is the DHHS position that a NNMS is virtually in place including mechanisms and reporting systems for food composition (examples—National Nutrient Data Base/USDA and the Total Diet Study/DHHS), nutritional status (examples—NHANES and the CCSS/DHHS), food consumption assessments (examples—NFCS/USDA and NHANES/DHHS), food knowledge and attitudes (example—Public Atti-

tudes Survey/DHHS) and food supply determinations (example—food disappearance data/USDA).

Improvements can be made in the system through research and better coordination across programs. NHANES/NFCS Coordination Committee is examining ways to better coordinate the "cornerstone" of the NNMS with respect to nutrient data bases, methodology, definitions of variables to be covered and presentation of results. This activity is occurring during the planning cycles for both 1987 surveys.

Research on better dietary intake methods by USDA will be used to evaluate NHANES methodologies. Nutritional status research on better methods will be carefully evaluated for incorporation into the NHANES III program.

The NNMS in 1987 will be more complete than in previous years, but it will continue to evolve improving scope and coverage of population for a number of years to come.

Senator DOLE. I understand scientists from the two departments have submitted a report which evaluates the advantages and disadvantages of combining the two basic surveys of the monitoring system: The National Health and Nutrition Examination Survey (NHANES) and the Nationwide Food Consumption Survey (NFCS).

What is being done about the recommendations of these statisticians to coordinate these two surveys better?

Dr. MCGINNIS. Although the scientists concluded that two surveys could not feasibly be combined, they did feel there were ways to better coordinate them. Technically, comparable dietary data bases will be utilized for reported dietary intake information. Common definitions of socioeconomic demographic variables will be adopted by the studies; when possible comparable presentations of results will be made in tabulations to enable easy comparisons of results. As a result of the Joint NHANES/NFCS Users Conference the content of the dietary components will be coordinated to meet the broadest set of data users' needs and to eliminate unnecessary overlap.

This effort requires continuing technical staff interaction over the next two to three years. The frequency of staff meetings will vary from weekly to monthly.

Senator DOLE. For the record: Has the Evaluation Committee met yet? If not, why not? What is the makeup of the committee? When will it meet? What charge has been given to the committee?

Is the make-up/expertise of this committee such that it will give us a better handle on the nutritional status of the low-income populations of the Nation?

They are supposed to be evaluating the present system. Will this evaluation shed any light on how we might better assess the nutritional status of all Americans, including those of low income?

What safeguards have you built into this committee structure and responsibility to assure this?

Dr. MCGINNIS. Before the Joint Nutrition Monitoring Evaluation Committee (JNMEC) can meet, the Committee's charter must be approved by GSA and published in the Federal Register. Since GSA has not approved the charter, the Committee has not been named and has not met. The first meeting of the Committee will occur as soon as possible after GSA charter approval has been received.

The JNMEC's charge is to develop a report on the nutritional status of the population, to identify gaps in the National Nutrition Monitoring System, and to recommend to the Departments general ways to improve the system. To fulfill its charge the Committee will use all available information on the nutritional status of the population.

The potential composition of the Committee includes medical doctors with public health and clinical expertise, a food economist, and nutritionist. All are recognized experts thoroughly familiar with the major nutrition and food issues especially with low income groups.

To ensure the JNMEC meets its charge, the Departments have committed a considerable amount of staff support for the Committee's activities of gathering and evaluating evidence of nutritional concern about the population. The Committee selection process will also safeguard against deviating from the assigned task. Each potential member has a record of successful Committee work.

Senator DOLE. How will the progress report due to Congress in November 1984 be completed if (1) certain activities required for its preparation have not yet occurred on schedule. (2) What can we expect the report will tell us about the status of the low-income populations?

Dr. MCGINNIS. Even though the development and approval of the charter for the Joint Nutrition Monitoring Evaluation Committee (JNMEC) has been delayed, DHHS and USDA staff expect to submit a complete and useful report to Congress next year. Staff are preparing proposals for content and format of the report for

consideration by the JNMEC as soon as it is possible to meet. Specific issues in nutrition are being examined as a matter of course as previously mentioned such as infant mortality, low birth weight and breastfeeding practices. The NHANES data are being analyzed to develop reports on obesity, anemia, hypertension, and folate deficiency. The Coordinated State Surveillance System information is analyzed in a continuing fashion. These activities and those being conducted by the USDA with respect to food consumption will provide a major part of the report to Congress.

For most analyses of nutritional problems, the report will identify groups that seem at higher risk of specific nutritional problems. These groups would likely include the low income population, children, women of childbearing capacity, and the elderly. All the major surveys have this capability.

Senator DOLE. Also, with respect to the March 1978 proposal: As I recall, you outlined several steps which could be taken to evaluate intervention programs, like the food stamp, school meal, or WIC programs. In the October 1981 plan submitted to Congress, and today, you appear to be saying that such evaluations cannot be done.

Why this change of opinion/direction? What new knowledge have we gained over the last three years to bring about this shift in thinking?

Dr. MCGINNIS. Our opinion that a national monitoring system is not an appropriate mechanism to evaluate intervention programs like the food stamp, school meal, on WIC programs did not change between 1978 and 1981. Dr. Edward Brandt, Assistant Secretary for Health dealt with this issue in his testimony before the House Committee on Science and Technology Subcommittee on Science, Research, and Technology in June 1981. Evaluations of such programs must be done through specifically designed studies that carefully control for the large number of intervening variables that tend to confound the analyses and interpretations of the results for participants and nonparticipants. DHHS staff consider such evaluations important special studies but not a part of the National Nutrition Monitoring System.

The NHANES programs did collect information on the participation of individuals in school meal and food stamp programs. NFCS also included questions on WIC participation. Analyses of nutritional or dietary status by participation in program and eligibility for the program will be or have been done, but they will be difficult to relate to program effectiveness. Program participants could be quite different than nonparticipants with respect to intervening variables not included in the analyses.

Senator DOLE. What is the progress on the Monitoring System's data users conference? What will be the costs to USDA and to DHHS?

Dr. MCGINNIS. USDA had provided a grant to the Food and Nutrition Board, National Academy of Sciences (FNB, NAS) last year to hold a Data Users Conference for the Nationwide Food Consumption Survey (NFCS). In March DHHS supplemented the funds of the grant to extend the scope of the Conference to cover the National Health and Nutrition Examination Survey's dietary component. The FNB committee met in April to plan a June Workshop that would basically organize and focus on issues for the open symposium scheduled for this fall. The Workshop was held June 6-8; the results will be made available to DHHS and USDA staff shortly.

The cost to DHHS is $87,100; the cost to USDA is $169,900.

Senator DOLE. Dr. Kotelchuck and Dr. Graham, do you want to start? It is good to see you both again.

STATEMENT OF DR. MILTON KOTELCHUCK, ASSISTANT PROFESSOR OF HEALTH POLICY, HARVARD MEDICAL SCHOOL

Dr. KOTELCHUCK. I actually thought that last testimony was quite interesting since it shows that the poor are not as nutritionally well off as other groups in the population, but that we have made real progress over the last 7 years.[1] In Federal programs you cannot do causal associations, but the Federal Government can take some credit for large numbers of the programs that they have put into effect, really starting from the war on poverty days onward, to combat the problems of nutritional deficit among people. I think the results are very encouraging.

[1] See p. 200 for the prepared statement of Dr. Kotelchuck.

I want to speak today about the WIC program. I spoke last year to you about one of my studies, and I want to talk a little bit about a new study that I have done, but more specifically, today I would like to try and draw some observations from the whole body of literature that has developed in the evaluation of the WIC programs.

First, I would like to just say I am very pleased to talk after Dick Blount. Dick heard me talk 2 years ago at testimony, and coming from the "Show Me" State said, well, if they can do it in Massachusetts, we can do it in Missouri. And I just heard his data for the first time today—or actually heard it a week or two ago when he called me up—but I was very pleased that they were able to replicate some of the work that we had done in Massachusetts, and he presented the data quite eloquently.

So I am not going to review all of the details of what the literature shows about the WIC program, but simply to note that there are now seven, I think, fairly major studies of the prenatal component of WIC. Without going into great detail, each of the seven studies seems to show a very similar set of findings. I could summarize Dick's summary and my own by simply saying the studies as a whole tend to show three major things; namely, that there is improved birth weight and a decrease in low birth weight status associated with WIC participation, and that the longer you are on the program, participating for a lengthy period of time greater than 6 months, the maximum benefit. His study and our study also tend to indicate that the highest risk populations also seem to be benefiting the most.

He reported a new study. I will just simply say we also did a new study, different than the one I reported last year, which I put in my testimony, in which we tried to overcome a kind of major methodological problem that exists in all of the WIC studies, which is how do you find the right comparison group to make your judgments.

In our last study that we just did, given the chance fact that WIC had just started, many women who participated in WIC in our last study that were giving births in 1978 in Massachusetts and were WIC participants, many of these women were on their second birth and later. In fact, their prior births were not on WIC, because WIC did not exist. So we had the basis for a longitudinal study of whether WIC worked by examining each woman who was on their second birth and later. Basically we compared two consecutive births of women: One which was not on WIC and one which was on WIC, and adjusting for the temporal changes that you would expect between any two births.

Without going into all the details, we were able to find 1,300 women who had all single births, all births in Massachusetts, where we had good data and who met the pattern of having not been in WIC and then having been on WIC.

Basically what we found was almost identical to the previous study. And I should just say this study avoids a lot of the problems of whether there is something special about WIC women or does the program itself really make the difference.

Our basic findings were, as I said, almost the same as before. We found that all of the poor outcomes of pregnancy were significantly reduced. There was a reduction in the number of low birth weight

babies, and very low birth weight babies—under 1,500 grams. There were fewer SGA infants, fewer premature infants, and fewer infant deaths.

Likewise, as in the previous study, we found that WIC participation was also associated with improved prenatal status. This is a finding that encourages many people who like to emphasize the linkage of the nutrition to the medical care situation.

Third, we found, as in the previous studies, that increases duration of participation in WIC for more than two trimesters, meaning more than 6 months of the pregnancy, is associated with major increases in birth weight, major decreases in low birth weight and SGA babies.

The only difference in our study this time from the last study is that we did not find strong findings of particular benefits for high risk groups. We tended to find that more in our first study.

Overall I would say that our newest study, supporting our last study, based upon improved methodology, supports the contention that WIC participation is positively associated with improved birth outcomes.

I would also just like to point out that while one can quibble with any single study, there is no study that is perfect, mine included, and the ones coming up will also not be perfect; but that there is a growing body of evidence in study after study that all seem to be finding the same basic set of findings. In fact, it is quite remarkable to see seven studies with signs in the same direction, magnitudes about the same—about 100 grams birth weight difference and some 20 percent reduction of low birth weight. A scientific consensus grows. Even if you ignore each study, when you look at all the studies there is growing scientific consensus that prenatal participation in WIC is associated with improved pregnancy outcomes.

What I would like to do now is just comment on a couple of specific general findings from all of the research that I think are worth further note. First, WIC reduces the incidence of low birth weight in infants. Now, this is the finding that everybody reports, and I just want to reiterate, and I think as Senator Dole quite well knows, low birth weight status is probably the strongest neonatal predictor of subsequent childhood mobidity. Low birth weight status is correlated with rates of mental retardation, developmental delays, handicaps and virtually all of the chronic illnesses in childhood. In Massachusetts, 75 percent of all infant deaths are low birth weight infants. And low birth weight infants make disproportionate usage of neonatal intensive care units, title 5 programs, and in turn child health block grants, special education programs, et cetera.

The prevention of low birth weight status is a major maternal child health public goal, and nutrition plays a significant role in the determination of low birth weight status.

I just want to draw your attention to the fact that in our two studies we found that for the entire WIC population a 21-percent and 23-percent decrease in low birth weight status, 15-percent decrease in the Missouri study and 20 percent in another study. And for participants greater than 6 months, there was a reduction of 60 percent and 47 percent in the incidence of low birth weight. These

are major reductions in low birth weight status. In fact, I cannot name any other public health program, public health intervention, which can demonstrate such a marked reduction in low birth weight status. And I just wanted to emphasize that. The numbers are high, but other programs have been unable to demonstrate this large a reduction.

The second point I want to make is that I think WIC may be inhibiting the increases in the national infant mortality rate. While WIC itself, I do not think, is contributing strongly to the reduction in infant mortality, I think there has been a lot of to-do in the press over whether there is a rising infant mortality or not, a rising infant mortality in Michigan and other places. As a nation we have recently been facing a very severe economic crisis, severe enough that we should have seen large rises in infant mortality. In my opinion, we have not really seen very large rises in infant mortality, and I think we have to ask the question: Why have we not seen even larger rises than we have? Some areas have seen rises, but why we have not seen larger rises?

I believe one factor inhibiting the large increases in infant mortality is the existence and functioning of some Federal public health programs which counter the economic pressures that cause the rising infant mortality. WIC is such a program.

I do not know whether WIC is strong enough to hold back the whole trend that the recession is causing. That I am somewhat doubtful of, but it does serve effectively as a kind of countercyclic program. It serves to moderate whatever trends that are taking place in other sectors of our economy, and I think that is an important contribution that WIC plays.

I have to, however, on the negative side note that WIC has very little programmatic flexibility. It cannot adjust its enrollments to meet increasing community needs, and I think that is one of the central problems that WIC faces today.

Studies also indicate that early participation in WIC is important. Study after study seems to show that if you are in it for more than 6 months, you benefit. That is when the major benefit of WIC participation takes place. It obviously suggests that active outreach programs to enroll women early in the program, early in their pregnancy, is important.

But the issue of whether you get into the program early or late is not something that should be left to chance or self-motivation. There are, in fact, actual barriers and incentives to early participation. Larry Haddad, who is a graduate student at the University of Massachusetts, analyzed some of the data from our first study and some of the characteristics of the sites in our first study and showed that the probability of women entering WIC in the first 3 months of their pregnancy was significantly enhanced if, and he found a series of factors: if the program had been open a long time—sort of a mature, functioning program; if the program delivered its supplementation through retail stores as opposed to home deliveries—publicly visible program; and finally, if the program site uses public service announcements—enhanced public awareness. Those programs had more women joining the program in the first 3 months than did other programs in the State.

These are program barriers which can be addressed, and I do not hear anything in the WIC discussions talking about how you can try and make programmatic changes to follow up on some of the research leads.

In Massachusetts only 33 percent of the women participate for 6 months or longer in their pregnancy in WIC. The average is 4.6 months; which is a fairly high rate as the country goes. But with a little bit of extra effort and relatively little extra cost, the potential impact of WIC as a public health program could be enhanced substantially by getting women on it slightly earlier.

Perhaps some national incentives could be established to reward WIC program sites that have high rates of early participation. There is nothing in the program built in to encourage this kind of participation, and that would not be difficult to establish.

The next point is that WIC is a program that is particularly popular with low-income people. One of the issues in many of these programs is whether they are stigmas or popular. I would just comment that WIC is a particularly popular program, I think, primarily because it is perceived as a public health program and not as a welfare program. If you talk to women, as a whole they do not perceive WIC participation as a stigma, and if anything, many of them feel that they are doing something positive for their future offspring by participating.

This is from our own data. Once people enter the WIC program, they actively and fully participate in it. Ninety-one percent of all potential vouchers were cashed. Once a person entered the program, almost all vouchers that they were offered they used. Not only was that true for all the persons, but every one of the subcategories you could think of used their WIC vouchers at greater than 90 percent redemption rates. This is a very high individual participation. If we look at each person by person, it is very striking.

You rarely find waiting lists for unpopular programs. In particular, it is popular with teenage mothers, a group many of us are concerned about. In Massachusetts in 1978, 37 percent of all teenage women 17 years of age and younger, so we are talking about the young teenage mothers, who were living in areas in which there was a WIC program, were enrolled in WIC in Massachusetts; and their redemption rates were also above 90 percent. So once they were in the program, they used it.

I know of no other voluntary public health program which can reach an appeal more to young teenage mothers than the WIC program, and I think if you talk to these young mothers, they will tell you that they like this program. They do not feel it is a particular penalty, that they have to go some place that says, "This is for unwed young mothers." They participate like everybody else.

I think the fortuitous occurrence of the popularity of WIC and its strong public health benefits augurs well for its effectiveness in dealing with nutritional needs of low-income Americans in the 1980's.

I have two last points, and I will stop.

I think WIC should not focus exclusively on women and infants. In each of these hearings I always hear a sort of undercurrent, that we should make WIC just WI and leave out the C. They are the group that are No. 5 and No. 6 on the waiting list?

I believe that the existing research, WIC research, does not suggest that WIC should be focused exclusively on women and infants. While strong research exists to support maternal participation in WIC, little research has been conducted on the benefits to children, either to show that it is positive or to show that it is negative.

As a researcher, I can state that it is very difficult to scientifically study the children who benefit from WIC participation. Developmental changes in children are too overwhelming and too rapid for most researchers' static study designs. But I do believe that these will be overcome in the next couple of years, and I am sure if you continue holding hearings, which I am sure you will, in the next few years you will hear about this research.

Research on prenatal participation was also once seen as a difficult area; but in fact, research in this area has blossomed, and you have been hearing about it for the last couple of years.

To scientifically justify limiting the WIC program solely to mothers and infants would require a comparison of the long term health benefits for maternal supplementation versus supplementation of 1- or 4-year-olds. This type of research has never been done. To use prenatal participation research data, to say, that, there is a body of literature that says it is good, and we do not need to worry about the others, would be to misuse the research that has existed to date.

It was ease of research design that has dictated the initial set of studies on prenatal care, and not a scientific judgment by the researchers as to what was the best age for WIC program intervention. Much more work on childhood nutritional needs and effective interventions is necessary before any arbitrary age cutoff is established.

My last point I call equity of access to WIC. The national figures show only about 25 percent of eligible women, infants, and children participate in WIC. Long waiting lists abound in all the States. My own studies at the micro level in Massachusetts and in the USDA figures show large geographic variations in participation rates among eligible people.

These variations are strictly administrative. In fact, based on figures obtained before I came from Massachusetts, there is one section of the State that has 16 percent of eligible people participating. In the other, similar part of the State has 46 percent of the people participating. And contrary to what the person this morning testified, it was not a lack of sites, it is a lack of money that we have in Massachusetts. We can develop the sites. Those present sites have full enrollment for the number of people that they can actually serve at this moment.

As I said, these variations are strictly administrative, and a person's accessibility to WIC is now being determined by a program's geography and its prior funding level history. We have a low rate in Massachusetts. Some of our neighbors have very high rates, and this goes back to the early funding in the 1970's that has just been continuing along.

Since I believe WIC is an important public health program, I believe equity of access to WIC should be a national goal. I understand that the $100 million that was recently added, which you should be complimented for, in the recently authorized emergency

jobs bill, will be used to start equalizing the State WIC funding levels, and I think that is a very good step.

But many nutritionally needy women, infants and children will still be unserved, and local area inequalities will remain. Perhaps a more comprehensive approach would be to consider making WIC an entitlements program for all who need its nutritional and financial requirements.

If WIC is a successful intervention, what rationale is there for withholding a program like this from eligible people? Waiting lists of eligible people for a program like this should be a national disgrace.

Moreover, the present program is not flexible enough to deal with national and regional economic fluctuations. Areas needing more aid cannot receive it under the present categorical arrangements. As long as WIC remains a categorical program with its yearly debate over the number of participants and funding ceiling, the issue of equity of access will not be addressed.

Unequal WIC penetration presently seen in our research studies and others should not be allowed to continue. Equity of access for all who need it should be our national goal.

As I have said before, I think WIC is a positive public health program, and I hope some of these suggestions can be used to help enhance its effectiveness in the 1980's.

Thank you.

[Questions submitted by Senator Helms to Dr. Kotelchuck and answers thereto:]

Question 1. Is there any information available to determine whether the WIC food packages are, as intended, supplemental food, or whether such packages merely serve as substitutes for the same quantity of food which was previously purchased? Additionally, what are the possibilities that WIC is "shared" with other household members?

Answer. There has been no systematic research to determine how the receipt of WIC food packages changes the food purchasing or food consumption habits of individual families. This question of food substitution and sharing versus intended supplementation has not been adequately researched to date.

Question 2. What conclusions from previous WIC studies, including your own, do you believe can be "projected" as nationally representative?

Answer. I believe that the Massachusetts WIC program does not differ substantially from WIC programs in other parts of the country. Thus, I believe that the conclusions from the two Massachusetts WIC evaluation studies that I have reported to this Committee this year, and in the previous years, are nationally representative. Namely, that WIC prenatal participation is associated with improved pregnancy outcomes, in particular, small but significant improvements in birthweight and gestation and major reductions (20%) in the incidence of low birthweight; second, that the longer one participates in the WIC program prenatally, the stronger the positive benefits; and finally, that the WIC program is most effective for the highest nutritional risk populations.

Question 3. How well is the WIC program targeted toward nutritional risk when only about half of the participants are in the highest priority category?

Answer. Based on the research conducted in Massachusetts, I believe WIC is a well targeted public health nutrition program. This question seems to reveal a misunderstanding of the WIC priority system. All priority categories represent nutritionally at risk persons. In my opinion, the ranking of priority categories is artificial, it represents an effort to allocate limited resources when insufficient funds exist to meet the needs of all nutritionally, WIC eligible, needy persons. Persons with chronic undernutrition (categories 4 and 5) have as serious nutritional problems, as those in other higher categories; they simply have not yet manifested clinical signs of malnutrition. The question seems to imply that WIC should be a "treatment intervention" for clinically malnourished patients only, not a prevention oriented program as intended by its enabling legislation.

Question 4. Has the historic trend of reducing U.S. infant mortality been affected by the initiation of the special supplemental food program for women, infants, and children—i.e., has the decline been accelerated since WIC was begun?

Answer. By the nature of the infant mortality statistics, it is impossible to directly attribute any specific factor to the changing infant mortality rates (IMR). This is also true in assessing the impact of WIC on IMR. It is impossible to demonstrate that the WIC program has been or has not been a major contributor to the recent decline in infant mortality. The coincidence of the onset of this program and the rapid decline in IMR since 1965, and even more sharply since 1975, is however striking. Moreover, our recent studies in Massachusetts suggest WIC is associated with decline in infant mortality. Our study suggests that WIC prenatal participation decreased Massachusetts' IMR by 2½ percent in 1978. I personally believe that the declining infant mortality that we are presently seeing in the U.S. has been helped by the existence of the WIC program, and it has certainly served to dampen some of the upward pressures for increased infant mortality created by recent federal government cutbacks in maternal and child health programs.

Question 5. At least one other witness indicated that obesity is actually as much, if not more, of a nutrition problem among low-income families as is malnutrition. What are your views in this regard?

Answer. Obesity is a serious problem for low-income families and it should be addressed by public health programs. Obesity and malnutrition are not the opposite sides of a coin. Although some may see it as a contradiction, WIC can play a positive role for obese women and children. WIC food supplements can serve to replace some of the nutritiously inadequate foods presently consumed, and through the WIC nutritional counseling improved attitudes toward nutrition and physical activity can be encouraged. The existence of obesity in low income families is no reason to dampen enthusiasm for the WIC program, which services certifiably malnourished citizens and may be of some help even to obese populations.

Question 6. Would you define what you mean by "highest risk populations" and how you arrived at designating certain groups as such?

Answer. Because the Massachusetts WIC evaluation studies did not have access to the WIC participants detailed nutrition records we defined "highest risk populations" on the basis of demographic criteria, not nutritional criteria. A highest risk population were chosen within each demographic category in the study. Demographic groups with high incidence of nutritional disorders, based on the federal HANES studies, were designated. Thus, the highest risk population based on education attainment are those women with the education under 7 years of schooling; or for age, the highest risk population represents those women in the youngest age category (15 and under), etc.

Question 7. Regarding your most recent study, you indicated that you controlled for "normal changes from one birth to another". What specific considerations did you take into account? Isn't it likely, for instance, that if a mother had a low birth weight baby, a premature baby, or some other complication on her first birth that she would have had taken increased precautions for a second birth—seeking additional prenatal care and so forth? How can the impact of WIC participation, particularly the nutritional impact, be isolated?

Answer. To compare two consecutive pregnancies, it is necessary to adjust the magnitude of the second pregnancy, by a factor, which takes into account the contribution of the older maternal age, the higher parity, etc. to the second birth. For example, on the average second births in the U.S. are approximately 60 grams heavier than first born children. It is this adjustment of "normal changes from one birth to another" which we have controlled or accounted for in our study design. This factor was estimated for the WIC participants, by examining the change in birth outcomes for two consecutive births of a matched control population—that is, we examined what happens from one birth to the next in a very similar high risk but non-participating population. Thus, our control is statistical in nature, everything that may influence successive births would be subsumed within it. No individual factors are singled out for special control. Approximately equal numbers of WIC (96) and Control women (88) had previous LBW infants. Women who had a LBW infant previously and now took extra precautions, including WIC participation, would be balanced by a similar control population. Women who had a LBW infant and also took extra precautions but did not join WIC. I do believe that the impact of WIC participation can be isolated statistically. In our recent WIC evaluation the differences in birth outcomes of the successive births of WIC participants compared to the two successive two births of the matched control women, where only the WIC experience differed, provides a direct estimate of the WIC impact.

Question 8. How do you distinguish between the effects associated with the nutritional component of WIC versus the improved health care which is purported to accompany participation in the program?

Answer. In the present study we did not attempt to determine the separate impact of WIC's nutritional component, integrated health care component, or the nutritional counseling component. We viewed WIC as a unfied public health program, not as a program of discrete components. Such a component analysis would require a different study design than used in our studies.

Question 9. What is the basis for your comment that the WIC program is serving "only 25 percent of eligible women, infants and children"? How are you defining "eligible"?

Answer. The statements used in my testimony on the percentages of WIC eligible women, infants and children served by the program are based upon figures provided by the U.S. Department of Agriculture in an annual report entitled Final Percentage of Eligible Report. The fiscal 1982 report was released by the USDA New England Regional Office, Jan. 4, 1983. This report shows 29.5 percent of WIC eligible persons in the U.S. were served by the WIC program.

Question 10. Do you have any specific information or statistics about the "long waiting lists" which you stated "abound in all states"?

Answer. The information on long waiting lists comes from my experiences with the Massachusetts WIC program. In October 1982, 1700-2000 persons were on its waiting lists. Moreover, since the number of eligible persons served is quite low in many States, this would indicate that the WIC program could serve many additional persons. Formal waiting lists are not the issue. Whether people show up at WIC sites and sign up on the waiting list or whether there is simply not an aggressive outreach program, people are not being served by the existing levels of WIC funding.

Question 11. You indicated that you have found "large geographic variations in participation rates among eligible persons". Would you elaborate on this statement (including the definition of "eligible")?

Answer. Based upon the federal USDA "Final Percentage of Eligible Report," mentioned in question 9, there are great geographic differences in the percentage of WIC eligibles served. Some states serve high numbers of eligibles: Vermont—69 percent; Mississippi—48 percent; Connecticut—46 percent; Nevada—44 percent; and some states serve few eligibles: Hawaii—10 percent; Puerto Rico—12 percent; Washington State—13 percent; Massachusetts—18 percent. Also our own research in Massachusetts showed great variability in the number of persons served in different parts of the state. In 1978 New Bedford had 34 percent of its birth on WIC, while Lowell a town of similar socio-economic statues had only 7 percent. Such wide geographic variations in WIC participation rates are inappropriate. The number of participants usng a site reflects historical funding decisions. Financial inequalities force some program sites to cap enrollment at a much earlier point than others, which results in continuing unequal access to the WIC program based on geographic residency.

Senator DOLE. Dr. Graham.

STATEMENT OF DR. GEORGE G. GRAHAM, PROFESSOR OF PEDIATRICS AND HUMAN NUTRITION, JOHNS HOPKINS UNIVERSITY

Dr. GRAHAM. Mr. Chairman, I feel terribly bad coming here, having the unpleasant duty of throwing cold water on such enthusiasm. I am a professor of human nutrition, and I am also a professor of pediatrics, but I am first and foremost a pediatrician deeply concerned with the welfare of children in this country, as you are.

During the past 15 years your attention and a very significant percentage of our limited resources have been focused on improving the nutritional status of low-income Americans and through this, their health, school performance, productivity, and social status. As predicted by a few in 1968, none of this has come to pass.

Instead, as predicted, there has been a proliferation of programs and the creation of many thousands of jobs for administrators and for health professionals, most notably dietitians and nutrition educators.

We should be hearing admissions of failure and recognition of the fact that we have been pursuing a red herring. Instead we hear demands for continuation and even extension of the existing programs.

I am not qualified to judge the value of food stamps as targeted income supplements. I do not doubt that school lunch programs have helped liberate many American mothers from the task of preparing lunch for their children to take to school. I do not question the likelihood that some well run WIC programs have helped attract pregnant women to important prenatal care and their infants to equally important well-baby care. I am even prepared to believe that a few WIC programs have decreased the incidence of iron deficiency anemia among infants and small children.

What I cannot accept are the unsubstantiated claims of nutritional gains attributed to these programs, and even less of improved school performance and social adjustment. Let me tell you why I feel so strongly.

The sensationalistic revelations of 1968 of rampant hunger and malnutrition in the USA were gross distortions of the facts. Certainly there re and there still are children who are poor, neglected and dirty. Certainly we saw then and we still see infants and children who are acutely and chronically malnourished as a result of neglect and abuse: this is seldom a food problem, it is a complex social problem, and shotgun food distribution programs are not going to solve it.

The 10-State nutrition survey, the HANES surveys, and the various nutrition surveillance systems have not confirmed the impressions created in 1968. The finding of greater-than-expected percentages of children below the fifth percentile of height-for-age does not represent stunting due to ongoing malnutrition, not in this country: Those who would use these data to move the Congress into enlarging existing food programs pointedly hide the fact that these same populations have less than 5 percent of children below the fifth percentile, and many more than 5 percent above the 95th percent in weight per height.

This is already true at the moment of enrollment in many WIC programs. In such populations, any gains in weight-per-height or weight-for-age generally mean a further increase in the obesity which is characteristic of low-income Americans, about which we have heard earlier.

The excess of low height-for-age is seldom seen among groups of white children, and even less among black children: In an increasing percentage of reports, black children of all social levels are taller than white children. The excesses of short children are among American Indians, Spanish Americans, and Oriental children. Whether these represent true genetic differences or lags in height catch-up which may take two or three generations more is not totally clear.

There is nothing wrong with being shorter than the average—and it may even confer some health benefits—unless you are striving to become a professional basketball player.

Black infants of low birth weight account for almost all of the excess infant mortality in some States when compared to others, and in the United States, when compared to other prosperous na-

tions. By the way, infant mortality in the United States is continuing to drop at exactly the same rate that it has since before any of these programs existed. I suspect that in Michigan where there were less births in 1981 than in 1980, that there were proportionately more black births, particularly in Detroit as the racial makeup of the population has been changing.

These same black infant low birth weights account for a significant percentage of those who survive with serious handicaps, tragic for themselves and their families, and an enormous cost to society. Extensive research and excellent care facilities have resulted in ever increasing survival rates and ever decreasing handicaps among the survivors, but the costs are still very great.

Some small-for-dates births in this country are due to maternal undernutrition, but most of them are not: The causes are varied and poorly understood. Two-thirds of the 250,000 infants born annually with low weights in the United States are not small-for-dates, but are truly premature, dramatically so among blacks. There is not a wit of convincing evidence relating premature labor and delivery to nutritional status. To claim that improved maternal nutrition is going to decrease rates of prematurity is far-fetched. Most tragically, it diverts attention and resources from the real issues.

I quote from the 1981 HHS Research Forum on Children and Youth:

> The prevention of premature births surely must rank as one of the country's highest health priorities. Approximately 8 percent of births in the United States occur before the fetus has had a chance to develop fully. These account for 70 percent of all perinatal morbidity and mortality.

By the way, the rate of premature birth is higher in this country than in many developing countries that have very significant undernutrition.

> The incidence of perinatal and neonatal death, cerebral palsy and mental retardation all increase dramatically with decreasing gestational age at birth. The reasons for being born too soon fall into three large categories:
>
> Number one: maternal medical or obstetrical illness often calling for an early termination.
>
> Number two, premature rupture of the amniotic sac. The cause is unknown and remains a fertile area of research. Prevention is impossible unless the reasons are understood. Research support in this area has been scant.
>
> And, number three, the spontaneous onset of labor prior to 37 weeks remains an enigma. The research of the 1970's now has built a strong foundation for further research aimed at prevention, with benefits to future generations beyond estimation.

From the same report:

> Factors associated with low birth weights nonwhite race, (which is a polite way of saying black because the Indians and Mexican Americans do not have a high incidence of low-birth weight), previous reproductive loss, short inter-pregnancy interval, out-of-wedlock birth, absence of prenatal care, and maternal age below 18 or above 35 years.

To throw high protein foods at this problem is a senseless diversion of resources and may actually aggravate it, as suggested by an important study carried out in Harlem, which I believe you heard this morning.

Supplementary foods during pregnancy should be reserved for documented cases of maternal undernutrition.

I have attached a table of 1979–80 nutrition indices by sex and ethnic group of children under 18 years of age reported from the State nutrition surveillance system by the Centers for Disease Control. These, as you know, are from predominantly low-income Americans.

NUTRITION INDICES BY SEX AND ETHNIC GROUP—UNDER 18 YRS [1] (FROM NUTRITION SURVEILLANCE—CENTER FOR DISEASE CONTROL)

	Height-for-age, percent low [2]				Weight-for-age, percent low [2]			
	1979		1980		1979		1980	
	Jan.–Mar.	Apr.–June	Jan.–Mar.	Apr.–June	Jan.–Mar.	Apr.–June	Jan.–Mar.	Apr.–June
Male:								
White	9.9	9.8	9.7	9.4	5.6	5.8	6.1	6.2
Black	9.2	9.8	9.8	10.1	5.9	5.8	6.3	6.3
Spanish American	12.9	13.2	13.6	13.0	7.0	6.3	7.6	7.2
American Indian	10.5	10.8	12.2	10.7	5.3	7.2	5.6	6.0
Oriental	23.4	23.8	20.3	21.9	17.0	17.6	13.9	14.8
Female:								
White	9.7	9.3	9.4	9.0	5.9	5.9	5.8	6.1
Black	7.5	7.9	7.3	8.6	5.1	5.5	5.3	5.6
Spanish American	11.5	11.6	11.4	11.8	6.3	6.1	6.6	6.1
American Indian	8.4	10.2	10.5	11.2	4.4	6.0	6.4	6.2
Oriental	25.2	20.3	19.1	21.5	17.6	10.3	13.1	15.8

[1] From initial visits to the health system, 1979 (17 States), 1980 (20 States).
[2] Less than 5th percentile for sex and age in reference population.

Percentage low values mean those below the fifth percentile of the NCHS reference population, and only 5 percent of presumably healthy children would be expected to be below the fifth percentile.

Of white males, 9.4 to 9.9 percent were low in height-for-age, but only 5.6 to 6.2 percent were low in weight-for-age, suggesting as was the case that less than 5 percent were low in weight-for-height.

For black males, the figures were almost identical. Of Spanish American males, 12.9 to 13.6 percent were low in height, and 6.3 to 7.6 percent in weight. For American Indians, the figures were 10.5 to 12.2 percent in height and 5.3 to 7.2 percent in weight.

In these two last groups, there was a greater percentage of short boys than in the whites and blacks, with little difference in weight-for-age.

For boys of Oriental descent, the percentages of low height-for-age were 20.3 to 23.8 percent, and low weight-for-age, 13.9 to 17.6 percent. The figures for females were very similar, except for a decided advantage in height of black over white girls.

If we are to believe what we have been told over the past 15 years, the nutritional status of the Oriental children is catastrophic, and they should be doing extremely poorly in school.

I have also attached a copy of a page from the March 28 issue of Time. In the Westinghouse Science Talent Search, out of 40 finalists, 9 were born in Asia—including the grand winner—and 3 others were of Asian descent. That is 30 percent of the total. But Asian Americans are only about 1.5 percent of the U.S. population.

The story gives further details of the remarkable school performance of these children, including many products of Vietnamese refugee camps in Massachusetts.

I submit that in this country there is no relation whatsoever between physical size or presumed nutritional status and school performance unless it is an inverse one. If we believe that we are discharging our responsibility to low-income Americans, most particularly the blacks, by providing supplementary foods with the illusion that these will even begin to solve complex social problems, such as poor performance in school, we are practicing a cruel deception.

Confronted with a lack of evidence to justify these food programs, many respond that in reality they are just income supplements. Lurking behind this thinking sometimes is an assumption of inferiority, a belief that most blacks cannot make it in our society and need to be carried indefinitely. I do not believe that this is the case, and do believe that these well-intentioned efforts are counterproductive. They increase dependence, resentment, and an assumption of inferiority which is the worst enemy of achievement in school or elsewhere.

We do need to sharpen our ability to find as early as possible those children who are, indeed, not thriving physically. Medical causes must be ruled out first, followed by thorough social work to identify family problems, and find solutions: Food may be one of the least important.

We must find out why some children are motivated to learn and others are not, and how we can help families overcome indifference to educational achievement. We must make certain that those children who are motivated to learn have every opportunity to do so.

Perhaps we need to examine in great depth the distorted sense of values that is so damaging to many sectors of our society, and I might add, as Father Cunningham mentioned this morning, the banishment of our elderly from their homes and their lonely lives are a tragic consequence of our social values.

If we step back and look at what is going on in nutrition, we may realize its schizophrenic nature. On the one hand, some are deeply concerned with the possible adverse effects of too much of the good things in life: too sedentary an existence, too many calories, too much sugar, too much animal fat, too much of any fat, too much protein. They jog, lose weight, and are gravitating toward the vegetarian diets of the most primitive societies.

Combined with this is an almost indecent fear of not getting enough of certain nutrients. Currently the emphasis is on vitamin C, vitamin E, carotene, zinc, and other less familiar minerals. Most of current nutrition research is aimed at possible deficiencies in our diet.

On the other hand, many are deeply involved in making certain that the less privileged get plenty of the same foods which are being avoided by others: milk, meat, eggs, and lots of calories.

To complicate matters, increase the cost, and increase the wastage of food, they insist that meals be consumed in traditional patterns, rejecting as junk the highly nutritious convenience forms which most children prefer and gladly consume. Perhaps we need to have our heads examined.

The resources and energy expended on this effort might much more usefully be directed at solving the very real social problems which are a much greater threat to our children.

I find it tragic that we have to be speaking about thousands of mothers under 17 years of age.

To conclude, all the evidence indicates that the nutritional status of our people, including low-income groups, is very good and continually getting better, and that the greatest threat to their health lies in overnutrition. This does not mean that we can become complacent. We have to watch over the nutritional quality and safety of the food supply. We have to protect the public from all-too-prevalent fraud, and we have to continue our efforts to determine the relationships between diet and disease.

Most important, we have to worry about the quality of what is fed to the minds of our children and to make certain that each child has the opportunity to develop to his or her maximum potential.

Thank you.

Senator DOLE. Thank you very much, Dr. Graham. I will not dare ask Dr. McGinnis to try to explain to me the differences here in the HHS view.

Dr. McGinnis, after listening to the two witnesses, does that bring to mind any areas that you need to comment on, to supplement your previous testimony? I am not asking for debate here, but maybe some statement from you would be helpful to us.

We just had two witnesses going in different directions, and, as I indicated this morning, we are going to have to make judgments in this committee based on testimony here. Of course, we are not experts in the field at all. We are making big policy decisions that affect lots of people—including taxpayers, I might add—based on the record we make. So if there is anything else you can contribute, it would be helpful.

Dr. MCGINNIS. Well, since we had two witnesses that have gone in two directions, let me sail down the middle if I can.

Senator DOLE. It is generally a safe place.

Dr. MCGINNIS. Our position is that we cannot draw definitive conclusions from our standard surveillance systems that I have alluded to about WIC or the other intervention programs; that there is the problem, alluded to earlier, of the control groups. How can you really establish a legitimate control group? It is important to bear in mind that occurring along with the implementation of WIC and other intervention programs was an expansion of efforts to provide maternal and child health services of a broad variety, along with some educational programs, to try to enhance the behavior of pregnant women during pregnancy.

In order to answer these questions definitively, we have to have specifically designed and carefully controlled studies. But the important thing to bear in mind, I think, is that we are encouraged that efforts to reach the populations with a variety of services and education efforts—and that includes services through health centers, services through food supplements and education programs, as well, not only on nutrition, but also on other issues important to pregnancy outcomes, like smoking and alcohol and access to prenatal care—have been effective in the aggregate. That is, the population that we are concerned about is, as far as we can tell, continuing to get healthier, and we all ought to be encouraged about that.

The critical question, of course, that remains is how can we best target our efforts at this point.

Senator DOLE. Dr. Kotelchuck, in all of the WIC studies you mentioned, did you consider other factors, like smoking, or alcohol, or drugs, when you looked at non-WIC babies?

Dr. KOTELCHUCK. Different studies consider different issues. The smoking issue was considered in Missouri. We did not have smoking data in Massachusetts. If you ask me, I think probably one of the best benefits of WIC may well be reduction in smoking among pregnant women. I cannot prove that in my own State, but in Missouri they were able to control smoking, and so they saw that the effect was not due to smoking. And each of the studies tries to isolate the WIC contribution away from other possible factors that might be explained in the same results.

I just think there is this consistent set of data that has come in study after study, and it is supported by what is taking place in the data assistance from HHS, that there seems to be some improvements in the nutritional status.

It is kind of a tricky debate. There are some people saying, among my friends, things are getting really worse the last year or two; and there are others who say, in a little longer perspective, things have been getting quite good and getting much better. I am not sure which way I would argue for the last 2 years.

But I do think the last few years, the last period of 10 years, have really shown some improvements, and I know Dr. Graham does not agree with me, but I feel that.

I wonder if I could comment on one or two of his points?

Senator DOLE. Certainly—and we will let him comment on a couple of yours.

Dr. KOTELCHUCK. Having obviously said I do think that the efforts for the last few years have been more beneficial, and I think HHS tends to support me, I do think he suggested a couple of key things that I wanted to draw your attention to.

One is he emphasized that the low birth weight rate for the black population relative to the white population was substantially higher. It is almost twice as high, and I know the data in Massachusetts quite well. Twice as many blacks have low birth weight infants as do whites in Massachusetts, and I think he somewhat implied that this might have a genetic basis.

I would just simply say that I think that the fact that we have such a disproportionate distribution of low birth weight by race and by social class is really somewhat outrageous in the United States. I do not believe that it is genetic, by and large, and in fact, we should be working very hard to try to reduce that gap. One of the things that I particularly have found promising about the WIC problem, not just praising the WIC program, but WIC is one of the few programs that seems to benefit. If you have a ratio, it is benefiting the lowest income groups more: the most seriously ill or the most seriously at risk compared to the less seriously at risk. In other words, it is going in the opposite direction of what our national figures are.

Our national figures say blacks have more low birth weights than white. WIC is actually doing something about that and trying to equalize; moving toward equalizing the distribution of low birth

weight status across all racial groups and income groups in the country, and I think that is kind of a positive thing that kind of works again in the opposite way of some of our data.

I do think it is something that we should be learning much more about, the differences in these rates by social class, by race, and by other things.

The second thing he mentioned was about premature births. I want to concur with him that I think the issue of how to deal with premature is probably the most serious issue facing us in thinking about infant mortality in the United States. The majority of infant deaths in the United States do come from premature children. They do not come from a slight birth weight difference, and I do not want to mislead you on this.

I would have not predicted that WIC had any effect on premature status. When I went into this study, I was not looking for gestational age differences, prematurity, to be affected very heavily by WIC. Yet it seems that in four of the major studies that have come out, we have each found a slight improvement of premature status, the two studies in Massachusetts, Dr. Kennedy's study, and the study that we just referred to in Missouri.

Now, you can ask: Will WIC really make a difference in premature deliveries? Well, I think the answer is "it probably does." It is not going to be a major cause, but it improves the general health of the mother. It improves the mother's resistance to infection. There are a number of factors.

No one actually knows quite what starts premature rupture of the membrane, whether it is a viral infection, whether it is strictly genetic. People do not know. I think that is another area's task to worry about.

But I do think the WIC program seems to be making some impact in that area, not a great deal, but it does have some impact in that area. That is, frankly, a surprising finding. I do not think we really would have predicted it. We would have predicted it would have affected the birth weight of the child, you know, the fetal size, not the duration of gestation, but the finding does reappear.

The last point I want to comment on, Dr. Graham said do not keep throwing all of this food after them. He enunciated the causes of low birth weight status, particularly among some of the minority populations: short interconceptual pericd, being born out of wedlock, maternal age. Those happen to be true. That is what you will find in our studies in Massachusetts also.

But the reason that you have those factors and not something like nutritional status or some other details is that those are mostly demographic facts. I can get them from the birth certificates. Those are the kinds of facts we know. But no one actually surveyed to see whether the nutritional status of these women really looked that different. Only the HANES data gives us some clues.

So I would just say that, you know, some of these factors such as being born out of wedlock and maternal age, they often are surrogates for nutritional needs. The closest thing we have are demographic surrogates, and to try and argue that these nutritional programs do not deal with these issues, nutrition is not going to make

people marry. That is for sure, but the people not being married says something about or is likely to say something about the nutritional status because it will mean they are young mothers. That is the age group that is not married.

Those are my last comments.

Senator DOLE. Dr. Graham, I am going to have to move on to another panel here, but I do want to give you an opportunity to speak.

Dr. GRAHAM. Maybe I have lived a little longer than Dr. Kotelchuck, and had a chance to read a little more, but the high rate of prematurity amongst blacks has nothing to do with nutrition. It is the same in all social classes, and it occurs in Africa. It occurs everywhere.

In this country, as I mentioned before, the Mexican Americans, American Indians, who have an inferior nutritional status to blacks, have a much lower prematurity rate. In the poor slums of Bangladesh or Peru, they may have low weight-for-dates—children born at term with low weights—but the prematurity rate is lower than that of our black population. That is a racial-genetic characteristic and one that we need to find an explanation for if we are going to prevent these tragic occurrences.

Now, as far as the Kennedy study or other studies, I defer to Dr. Rush who knows more about this than I do, but when you say that those who received six vouchers had a lower incidence of low birth weight, just think a little bit. By the time the sixth voucher came around, most of the premature births had occurred already. So consequently, anyone who received six vouchers is someone whose pregnancy lasted more than 7 months.

That is a very difficult thing to analyze. I do not know every aspect.

Senator DOLE. Well, I think that is important. You know, we all watch television and read things about how the Reagan budget cuts are increasing infant mortality and lowering the birth weight. Politicians throw these issues around a lot, but we have to deal with the real world. I guess, as I listen carefully to your statement, it would be your general view that we are probably spending a lot of money needlessly as far as the data is concerned. You do not think there is a real need. There is no hard evidence that the WIC program has had all of the beneficial effects that others have stated.

Dr. GRAHAM. Not for the broad approach that has been taken: just belonging to a social group makes you eligible. I think that targeted, nutrition intervention has a place in identifying mothers who have poor nutritional status and allowing us to do something about it. But to provide supplements of milk and cheese to women who are perfectly well nourished, and if anything often are obese, in the hopes that this is going to prevent premature birth is not correct.

It does not prevent it, and it may even aggravate it, and I think we would derive a lot more benefit from finding out why this happens, why a certain percentage of particularly black women go into labor at 7 months intead of waiting the normal 9 months. This would be a great blessing not only to the blacks, but to all of our population.

Senator DOLE. We are told that the program it will maybe reach 30 percent of those who are eligible. If we had a better targeted program, some of the others who are potential recipients, not now included in WIC, may be able to participate in the program.

Dr. GRAHAM. I think if we stuck to the letter of the law, as it was originally written, it said for those who are identified as being at nutritional risk by competent professional evaluation. I think that has been largely ignored, and if people are considered at nutritional risk just because they are black or American Indian or Mexican American, that broadens the program.

Senator DOLE. Or a certain income level?

Dr. GRAHAM. Yes, that is right.

Mr. BLOUNT. Senator, may I take just a moment? I appreciate being invited to stay on this afternoon for the panel. Again, the hard data that I do see in Missouri, looking at the infant mortality rate, for instance, I heard Dr. Graham refer to whether it has been changed, and I am not naive enough to think that WIC has been a panacea for all of our nutritional health bills, but what has happened in Missouri infant mortality rate I think has been quite significant since WIC.

In 1972 the infant mortality rate of the State of Missouri was 18.3. It has come down steadily to this year, 1982, it is 11.9, a 47-percent decrease in the infant mortality rate during the period of WIC in the State.

Senator DOLE. Do you have any data on how many of the infants were babies of WIC mothers?

Mr. BLOUNT. The thing that I was testifying to this morning, Senator, that the rates of low birth weight, for instance, has changed, which is the great contributor, as we all know, to infant mortality. I can give you that. For instance the 15-percent reduction that I spoke of in the low birth weight for the State of Missouri, again, I think when we break that down between white and nonwhite, it does have some other data which you might want to look at in the light of what Dr. Graham said about genetics.

The decrease in low birth weight among whites has been 10.7 and the decrease in the rate of low birth weight among whites, the same, was 12.6 among the nonwhites. So the program has been more effective in the State of Missouri for our study as the decrease in low birth weight among the nonwhite population.

The other thing that we look at is the number of actual infant deaths in 1982 in the State of Missouri. It is the lowest that it has been in the history. We had 900. This is the third consecutive year that we have had lower than 1,000 infant deaths. Previous years was 971 and 970.

The other thing that we looked at in the State of Missouri was the rate of low birth weights. It was 6.4 in 1982, which is the lowest we have had in 30 years.

So I guess I would simply want to say in the light of that kind of data, I think that when we look at the whole section, I would agree, I believe, with what you said Dr. Graham, that there has been progress in the matter of health and maternal infant care here, and I think that certainly WIC has not been maybe even the major contributor. I think it has certainly been one of the significant ones.

The other thing that I testified to this morning that I simply want to reiterate to show how WIC is a linkage to all of this, I think what we have experienced, which I said this morning, is that WIC has become the magnet or care or whatever it may be that brings the people into the health care arena at a much earlier time, and I do not think it is WIC, frankly, Senator, even though I am a director of the WIC program, by itself. I think that as the magnet draws people into the public health and private health center, it has probably done as much to contribute to those positive results as the food itself, although I certainly am not one to discount supplemental food.

Senator DOLE. Dr. McGinnis, does any other member of your group have any comments on any of the statements made?

Mr. FORBES. Just one thought comes to my mind. In our FDA consumer studies on public understanding and perceptions on food and nutrition, the variable that consistently proves to be most significant is educational level, not income status per se. Every time we do these surveys, which is approximately once a year, it continues to come back that way with a very consistent pattern. So one cannot help but wonder how much is involved with educational level either of the actual recipient or of their family plays in the outcome.

Senator DOLE. Anyone else?

[No response.]

Senator DOLE. Well, thank you. I may want to submit some questions to HHS. Thank you very much. We will see you at the next hearing.

Dr. MCGINNIS. Thank you, Senator Dole.

[Questions submitted by Senator Helms to Dr. Graham and answers thereto:]

DEAR SENATOR HELMS: Your letter of July 14 and the enclosed list of questions found me out of the country: I spend a good deal of time in Peru, where I have directed research on malnutrition of infants and children for over 20 years.

In the enclosed attachment I have tried to the best of my ability to answer the questions you posed. There are certain important assumptions that are basic to my points of view and should help clarify these:

1. The claims made in 1968 and subsequently about "serious hunger and malnutrition in the U.S.A." never had any scientifically credible evidence to back them up.

2. If a population is well-nourished or over-nourished to begin with, any gains in average weights cannot be interpreted as "benefits": to add to the already heavy burden of obesity of our poor people is hardly doing them a favor. The more privileged members of society work very hard in exactly the opposite direction.

3. The vast majority of the inhabitants of Asia and Latin America are much shorter in stature than those of Europe and the United States: this is the result of many centuries of adaptation to a less nutritious diet and more hostile environments. When these people migrate to the United States, as they do by the millions, and find a great abundance of the least expensive food in the world, the first response, after an initial period of conflict between two different sets of food habits, is an increase in weight-for-height. Only after one or more generations does height begin to approach the standards of our white and black populations.

4. There are hundreds and even thousands of truly undernourished people in the United States: they could and should be identified by proper screening and surveillance techniques. Their problems, usually social, deserve individual attention. We are spending billions on programs which assume millions of undernourished people and which consequently are very poorly targeted.

5. One of the strongest arguments used to convince the Congress and the people to support massive food programs has been the assumption that even mild forms of undernutrition lead to impaired intelligence and poor school performance. This has

not proven to be true, but because it seemed like such a simple way to solve a complex social problem, 18 years and billions of dollars have been wasted. If even half of the amounts spent on food programs, based on these wrong assumptions, had been spent on early education, better-trained and better-paid teachers, etc., there would not now be the wailing and gnashing of teeth and rending of garments over the state of education of the children of the poor.

I trust that the enclosed answers will prove useful and will be pleased to expand on them where I can and where it might seem desirable. The enclosed clipping from the July 29 Baltimore Sun tells a lot about the way these programs are administered. I find it disgraceful.

[Reprinted from The Sun, July 29, 1983]

WANTED: NEEDY FAMILIES

STATE STEPS UP SPENDING ON NUTRITION AID

(By Milford Prewitt)

Maryland health officials said yesterday they were racing to spend $900,000 on nutritionally deprived mothers and children through a series of actions intended to avoid having to return some of the money to the federal government.

Following Governor Hughes's orders last week that the state stop a two-year trend in which $1.4 million in unspent food aid was returned, four top health officials said they would enroll as many families as possible in the Special Supplemental Food Program for Women, Infants and Children.

At a press conference at the state office building, Adele Wilzack, the Secretary of Health and Mental Hygiene, announced a five-point program that will attempt to deplete the state's $900,000 federal allocation in the WIC program by September 30, the end of the federal government's fiscal year.

Endorsing the recommendations of a task force, Ms. Wilzack said the state would take the following steps immediately:

Enrolling as many eligible mothers and children as possible as soon as possible by adding staff and authorizing overtime for WIC workers to identify recipients.

Improving the nutritional value of the WIC food package.

Improving the records of local WIC agencies and improving their ability to identify potentially needy families.

Exploring the possibility of using community centers on an emergency basis to distribute food.

Contacting members of Maryland's congressional delegation to secure the expansion of WIC funding.

The vigorous two-month race to spend the WIC money was spurred in part by criticism by the Maryland Food Committee, a volunteer, religious-based organization that seeks to feed Maryland's hungry. The committee had complained directly to the governor that thousands of poor families were facing serious health hazards because of the state's inability to enroll them in the WIC program.

Ms. Wilzack conceded that pressure from the group had played a part in the state's decision to intensify the enrollment process, but said the new approach would have been pursued anyway.

"I'm personally involved in this," Ms. Wilzack said, "so that if this ever happens again at least we will have a list of eligible [families] that we can move on."

Steve Trageser, director of the WIC program in Maryland, said there are currently 46,243 women and children in the program, 22,242 of them in Baltimore. He said an estimated 108,000 Marylanders may in fact be eligible.

Families in the WIC program receive each month $25 worth of milk, infant formula, cereal, orange juice, eggs, cheese and dried beans. Health officials point out that the food is only a dietary supplement designed to help low-income families who have health problems. The eligibility level for a family of four is an income level of $17,000 or less.

Question 1. You have called into question the conclusions of several studies which purported to demonstrate considerable success from the WIC program. I would ask you to comment specifically on the following four findings, as summarized by recent congressional testimony supporting the WIC program's effectiveness?

(a) There is a proven positive effect on the birth weights of infants born to (WIC) program participants and a decrease in the incidence of low birth weight (less than 2500 grams) and/or small for gestational age infants.

Answer. A claim of effectiveness, no matter from how prestigious a source, does not constitute "proof". Review by the authors' peers and approval for publication in

a journal of recognized scientific rigor does not in itself constitute "proof" but certainly goes a long way toward the establishment of credibility. Almost all of the claims made to the Congress about the WIC program have been just claims: when examined carefully by expert epidemiologists (e.g. David Rush) they have invariably been found to be wanting. I do not doubt that some babies may have benefited by their mothers' participation in WIC but I have seen no evidence to this effect because the vast majority of the participants could not have been expected to benefit. No report that I have seen has distinguished adequately between "small for gestational age" and premature infants, nor have any of these reports succeeded in establishing the receipt of WIC foods as the only difference between participants and non-participants.

(b) Significantly fewer neonatal deaths occur in infants born to WIC mothers when compared to babies of non-WIC women.

Answer. This claim is even less well substantiated than the others. Even if the statement is true as it reads, this does not prove WIC foods to be the cause.

(c) From cost-benefit point of view, the WIC prenatal supplementation program is highly desirable.

Answer. If the claims made were indeed true, then the cost-benefit calculations might make some sense. An incomplete examination of the report (Kennedy et al) to that effect reveals many liberties taken in attributing costs.

(d) As the length of participation in WIC increases, the positive (of WIC participation) also increase.

Answer. The fact that there is no effect from three months' participation and an apparent effect from more than six months is in itself a great weakness. In the Guatemala study the timing of participation was not important. Any infant whose mother participated in WIC for more than six months could hardly have been born prematurely!

Question 2. You mentioned in your testimony the issue of "stunting" associated with children below the fifth percentile of height-for-age. What are your views on the findings of a study on this issue which was conducted at Boston City Hospital?

Answer. The Boston City Hospital "study" (Frank and Spivak, as quoted by Brown) was nothing of the kind. The fact that 400 children making consecutive visits to the "walk-in" clinic in any hospital in any city have more than 5% under the 5th percentile in height-for-age is certainly not news and proves nothing about nutritional status of a population. Presumably all of these children were sick, some chronically so, and presumably they were of various ethnic origins, not all WASPS or blacks. What would have been found in 1982, 1981, etc.? To attribute obesity to a low-protein diet is the height of ignorance.

Question 3. What is the basis for your statement that low height-for-age is "seldom seen among groups of white children and even less among black children"?

Answer. The state surveillance data from the CDC.

Question 4. You indicated that most low birth weight births actually reflect prematurity rather than small-for-date births, and this was "dramatically so among blacks". What is the basis for your conclusion? Further, with regard to prematurity among blacks, is there any correlation to income status, or are you suggesting prematurity in black births transcends income status? What is the evidence for your conclusions?

Answer. Many publications from the National Institute for Child Growth and Human Development of the National Institutes of Health.

Question 5. Are the "height-for-age" and "weight-for-age" figures which are often quoted individualized for race or sex, or are these an across-the-board average?

Answer. When not broken down by race or sex such figures can be very deceptive. If weight-for-height is not reported the figures can then be very, very deceptive about current nutritional status.

Question 6. Some advocates of the WIC program have contended that the program is unlike supplementary feeding programs in developing countries which apparently are generally conceded to have had poor results. They contend that WIC has been more successful than these supplementation programs because the level of benefits are higher—900 calories per day as opposed to 200–300 calories in developing countries, according to one source. The second reason is that the provision of health care and nutrition education also contributes to the success of the program. How do you assess the WIC program relative to other programs?

Answer. The "failures" of many overseas programs are a whole other subject but if supplementation is to provide real "benefits" it should certainly be among truly undernourished populations and such has been demonstrated in Guatemala, particularly. I do not believe that benefits from WIC have been demonstrated. The fact that

900 calories per day were donated does not prove that one more calorie was consumed.

Question 7. How do you define the terms "hunger", "malnutrition" and "inadequate diet" and what, if anything, distinguishes one from another?

Answer. Obese people are always hungry, that is one of their problems, but that does not make them undernourished. Hunger is a complex sensation and very often subjective. The fact that our poor are much richer than most of the world's people does not make them feel any less poor in relation to other people in this country.

Malnutrition is usually equated with undernutrition but the term also includes overnutrition. The fact that both are forms of mal (improper) nutrition does not call for the same remedy. A diet is inadequate when if fails consistently to provide the nutrients needed to maintain health. Not all meals every day need to be "adequate".

Question 8. In the past, you have indicated that you felt some States were using a very loose definition of "nutritional risk" which is a prerequisite for WIC participation. Do you still believe this to be the case? Do you have any specific examples? How would you define "nutritional risk"?

Answer. I define "nutritional risk" as the consumption of an inadequate diet, one that does not meet the individual's requirements, whether healthy or sick. If a child's growth is up to his or her genetic potential and weight is adequate or excessive for height then I know that the diet is adequate.

Question 9. How well is the WIC program targeted toward nutritional risk when only about half of the participants are in the highest priority category?

Answer. I do not have enough current first-hand data to know how well current programs are targeted but if they are still enrolling infants and children, and pregnant mothers, who are already overweight-for-height or for stage of pregnancy, then they are not well targeted.

Senator DOLE. Our next witness will be Bishop Joseph Sullivan from Brooklyn, N.Y. We are happy to have you back again. We appreciate your testimony. It will be made a part of the record, and if you can summarize it or highlight it, that would be appreciated.[1]

STATEMENT OF BISHOP JOSEPH M. SULLIVAN, EPISCOPAL LIAISON, NATIONAL CONFERENCE OF CATHOLIC CHARITIES

Bishop SULLIVAN. I will be glad to.

Mr. Chairman, I appreciate this opportunity. I come on behalf of the board of the National Conference of Catholic Charities as the bishop's liaison to that organization, and it is a large organization with agencies in every State, every city, almost in every local community throughout America, and what we bring to today's discussion and information is really experience more than what you have just heard, nutritional experts who can relate the key variables around improving the health of American people.

We come out of a tradition which is not only a biblical tradition, Judeo-Christian tradition, which recognizes the responsibility of the community to see that the hungry are fed, but believes that one of the criteria for our judgment will be whether we have fed the hungry.

My experience of going around the country, and I have a fair amount of opportunity to do that, is to get around and to see in almost every area, both in churches, in synagogues and in social agencies significant increases in the number of people who have come demanding food for at least a part of their nutritional needs.

For example, in New York City, where we have what is an incredibly increasing number of homeless people, somewhat by State policy, the deinstitutionalized mentally ill, but the largest increase

[1] See p. 211 for the prepared statement of Bishop Sullivan.

of street people in our town are really people who are unemployed by reason of the recession. They were at the bottom level in the employment pool, and the first dismissed from jobs. We have seen a budget of $7 million increase in New York City to $50 million in 1 year to provide shelter and food for the homeless.

In fact, many of the voluntary sector have come together, particularly in the synagogues and in the churches, to cooperate, and so we have 50 churches in New York City at the present time assisting the homeless. We hope to increase that significantly, to provide shelter every night and on weekends for the homeless people to offer food, the opportunity for clean bedding and showers.

In our own diocese, we have 60 parishes involved. We have always had the inner city parishes which have provided food as some part of their program, but we have seen a significant increase, so much so that we have seen the increase in demand for food go anywhere from 100 to 400 percent in the last 2 years.

In a city where we have a significant increase in welfare recipients and the AFDC rolls we see where people are using food money for rent. We have well over 50 percent of the welfare recipients paying rents that are above their allowance. We find local merchants telling us that in the third week of the month people are coming in and trying to get food on some kind of credit allowance.

In the city of Baltimore, a local church less than 2 years ago was feeding 150 people a day. Now they are feeding close to 600 people a day in one program.

In the Buffalo diocese the number of people who have requested food has doubled from 120,000 to 360,000 requested meals in the past year.

I have seen it in Tallahassee recently, where the local cathedral provides luncheon and evening suppers for people who come up through Florida looking for work and know that that is a stopoff place where you can get food.

We have seen it in places like Detroit. We have seen it in Chicago. Recently I was in Cleveland and see significant increases in demands at local parish churches.

So what we are really offering is not statistically validated information because most social agencies and churches do not provide that kind of resource. They take the moneys that are available to meet basic human needs and rely more on the universities and on research councils to do the statistical data.

From the street level, it is clear to us that there is a growing need for people because of economic recession, unemployment, cuts in AFDC and cuts in the food stamp program. In our city, there were 175,000 who no longer qualified for food stamps in the past year. So we are seeing that there is an increase from our practical experience.

Subsidiarity has been a traditional church teaching. We believe in the first instance that families and individuals should take care of themselves. When they cannot, the community should respond, and when that cannot, hopefully government. The development of a national food policy was largely supported by churches and synagogues and social agencies. It is our experience that it cannot be done, that the resources do not exist at the local level any more to meet local needs.

The food policy program that we are looking for is a program that is responsive. It needs Federal leadership and Federal support. I heard Senator Proxmire on television this morning say that everybody comes to Washington, and they always ask for more. Nobody ever says, "Let's cut something." Everybody says, "We ask for more."

But I would think that we would not be fulfilling our responsibility, particularly when we are talking about what is such a basic human need and human right, if we did not insist that there has to be some improvement in terms of the food policy to respond to the growing demand for people.

We have just heard testimony on whether WIC is all that effective. It seems to me it always has been, in our experience, a fairly key variable in a local area in reducing low birth weight, and that has a high, significant correlation in terms of healthy children. A place like Newark where from 4,100 people who were receiving WIC a year ago, are down to 2,200 this year. They cut it almost in half. The waiting lists are increasing all over the country. Paterson, N.J., cut the program in half, not because there are not people who need it, but there are longer and longer waiting lines for the WIC program.

We come here today saying that we believe that the right to basic nutrition is a basic human right. We feel as a church that we have a priority concern for the poor, and we think that it ought to be a Federal priority. We think that the Federal Government ought to make the poor its first priority.

We have not seen that happen in the last 3 years. We have seen other choices made, other priorities come to the fore. It is our contention that we cannot have a healthy society, we cannot have a peaceful society domestically, unless we attend to what we feel are the most basic human needs of our people.

We were very happy with your leadership Senator Dole, in trying to get an improvement in the commodity food distribution. That was a tremendous help to us at the local level. I can tell you every time we have surplus foods available, the lines are there and the food is gone before the day is over. The lines are around blocks for almost every agency that distributes it.

We are not coming here as either researchers or as nutritional experts. We are trying to give you our frontline experiences throughout the country, which indicates that there is a practical, street level, family level concern that people really are going hungry in this country, and they are looking to the voluntary sector, in some ways, to make up for what the Government has not been able to do.

I would just like to say on that issue that many people do not understand that it is the Federal matching grants to States, and local governments to the voluntary sector, that has made it possible for many social agencies to use their money creatively, to meet the needs of people. What we are finding now is the unknown impact, as the Urban Institute has pointed out, that the $33 billion cut over 3 years in social programs to social agencies has a significant impact on how those agencies use their own moneys to match Government moneys, and I do not think there is any awareness that many voluntary agencies have largely depended on Federal

and State support in order to meet the poorest needs of the members of our community.

Just on that issue alone, it seems to me you judge a voluntary agency in terms of its relevance, of whether it is serving the poorest members of the community, on whether it is actually taking Government moneys to meet that need. To think that there is a capacity within churches or within the private sector to basically meet what I believe is a fundamental Government and Federal responsibility I think is to be misled, and I can tell you we are willing to cooperate. We are willing to do more. We have reached out in some ways to fund raise among our people to do more.

People have been more generous in the past year in voluntary contributions, but it is in no way going to make up for what we see as a declining situation in terms of employment, basic food and shelter for the American people.

It is our experience, and we hope we can impress upon you, that it comes from real personal contact more than it comes from statistical data.

Senator DOLE. Well, I will just ask this general question: Do you think families are withdrawing from their responsibilities? One thing seems to happen when the Federal Government moves in: Many families who are able to support their parents or whatever say, "Well, why should I spend my money? I can spend my money going on vacation or doing something else. Let somebody else take care of Grandma." There is always the Federal Government to step in, and I think sometimes when we say there is not enough funding from the Federal Government, we are saying, in effect, that no one else has the responsibility.

Bishop SULLIVAN. We would not want in any way to indicate that we do not believe we ought to undermine family responsibility, clearly—that is a moral responsibility and I do not know if law can enforce that. I think it can by some regulations or statutes, but I can give you an example.

In 1965 in New York State when we had medical aid to the aging and it was a means tested program, the money was never used because families, parents of families, the grandparents, refused to have their children and grandchildren go through a means-tested program in order to support them in a nursing home, so that they went without basic nursing and health care as a result.

We fought strongly in those days to try to change that regulation, and now we see what has happened confirms what you have said. There are people who have divested themselves of responsibility, but I can tell you it is not the poor. If you look at what medicaid supplies for supporting people in nursing homes across this country, it is a middle- and upper-class program that it is supporting. It is not the poor people that get into the nursing homes. You look at the number of minorities who are in nursing homes. You will not find them in the nursing homes. You will find that the people either have spent down or families have divested themselves of their responsibility, and therefore, the Government takes over.

That is not our goal. I think there has to be some kind of a primary basic family responsibility, and I think it is the church's role to insist that people meet that responsibility.

I think the Government has to use creative ways to supply money, and not to take that responsibility away from families, but to do it by a thoughtful policy in a planful way so that people understand that it is their responsibility, and it is not just dumped onto the Government, an impersonal third party.

Senator DOLE. I think in the past and it is still happening in many cases—not to the poor as you suggest, but to others with property—that people transfer their property to their children and then wait 2 years, and the children do not have to assume any responsibility. They end up with the property, and the Federal Government, or the State, has to pick up the responsibility. I think this is where I suggest there ought to be some stronger tie between children and their parents, as there was in the beginning.

Bishop SULLIVAN. You know, Senator, what is interesting is that the nursing home population in our State is 83 as the median age. We have children who are 65 being asked to take care of mothers who are 85 and 90 years of age. We are asking the family when we have one out of five children in this country raised in a single-parented family, and we have the majority of both parents working who have children of school age. I think we have to be careful to understand that the family is not always the great resource that people think it is in terms of either the time or the resources to do what is necessary for the elderly. We are a graying America. We are finding many 60- and 70-year-old people asked to take care of parents who are into their eighties and nineties, and I do not think that is realistic.

Senator DOLE. No, but it may come. As much as people dislike means testing programs, they are sometimes appropriate. We have sort of gone through this issue with social security. We are now going to tax social security benefits, which was unheard of probably months ago, if not years ago. Now we are going to say, "OK, those who have the money because they are upper income will pay a portion of their benefits back." This is a benefit reduction. It is a means testing of that program, and there are all kinds of programs out there where people with no need at all can participate, while those at the bottom rung of the ladder remain there. They are able to eke out a minimal subsistence, and that is about all.

So, as I view it, our responsibility is to look at every program and see where we can save some of the money for those who truly need it. Having been dealing with some on the other end of the income scale in the last few weeks called bankers, I can appreciate even more the problems of the truly needy by contrast. But it is tough to make certain that everybody is being treated fairly when you have some who do not even want to pay their taxes.

Bishop SULLIVAN. Well, what we are interested in, Senator, I think is your leadership and your concern as you recently stated that you would hope that the food stamp program would not be cut just on a budgetary basis. How do we get a coordinated policy at the national level?

I do not think anybody who is genuinely interested in trying to meet the basic needs of people is trying to bilk the Government. I think what they are really trying to do is to respond to what we find on our doorsteps. In local communities the place that they go to is not the social agency in the first place; it is the local church

or local synagogue where people go because they want to preserve their dignity.

I find the great reluctance of people is to go to the public sector as the first place. They look to the family, or they look to the local church and parish as a way of trying to protect their anonymity, their dignity. We see people coming to us now like Nicodemus. They want to come in the middle of the night. They do not want to be seen.

Senator DOLE. That is true, and I appreciate your comment. I think you are right. I think, just to save money, we should not go out and start cutting back programs, but we do have an obligation to try to make them more efficient. If we save money in the process, we can stretch our dollars further.

Again we appreciate your testimony. Father Cunningham made a very fine statement before about Detroit, as you indicated. Your comments were very eloquent, as well.

Bishop SULLIVAN. Right, right.

Senator DOLE. Well, thank you very much.

Bishop SULLIVAN. Thank you very much.

Senator DOLE. Our final panel: Judy Frick, Childwatch Project, Wichita; Bob Greenstein, director of the Center on Budget and Policy Priorities; and Sister Josanna Abromaitis, Our Daily Bread Soup Kitchen in Baltimore.

If I can get the members of the panel to limit their statements to 5 minutes, that would be helpful. I am already late somewhere else. Sister, do you want to start?

Sister ABROMAITIS. Fine.

Senator DOLE. We will go alphabetically.

STATEMENT OF SISTER JOSANNA ABROMAITIS, OUR DAILY BREAD SOUP KITCHEN

Sister ABROMAITIS. Senator, I am the director of Our Daily Bread, which is a free lunchroom in Baltimore sponsored by associated Catholic charities, and I am here basically to tell you what I know about hunger firsthand, and the importance of the food stamp program as it touches my work.

Well, feeding people is my business, and for the most part they are actually needy people. Our Daily Bread serves one hot meal a day, 7 days a week to anyone who comes, and in the 22 months since we have been open, we have served over 240,000 meals.

We now see an average of 400 people a day. This is an increase of 25 percent over last year, and a 300-percent increase over our beginning month. At the end of the month, when food stamps run out and public assistance checks are gone, our numbers go up 50 percent and sometimes even 100 percent, and this last year we have served as many as 600 people a day.

When I mention these numbers, I am also talking about people of every description. We have men, women and children, blacks and white, young and old, although we do see the stereotyped street person, we also are seeing more and more disabled, the deinstitutionalized, elderly, recently unemployed, the Vietnam veteran, the pregnant woman accompanied by young children, and the entire family.

They all come to Our Daily Bread, and they are all hungry.

You can read the faces at Our Daily Bread as a commentary on the status of Maryland's 460,000 who live under the poverty level. Now, some have had their food stamps cut back, or they have recently been determined to be ineligible for food stamps. Many cannot receive them because they have no permanent address, and that especially affects us because of the number of people we have who are living at the mission or actually on the street.

Of course, by the end of the month, the family of four has seen its maximum allotment of $195 in food stamps run out.

Cutbacks in the food stamp program can only increase the already mammoth problem of hunger in this affluent country. When I left Baltimore today, there was already a line at Our Daily Bread, and it will be there tomorrow and every day after if appropriate steps are not taken to somehow attack the problem of hunger, and I do believe that supporting the food stamp program is one of those essential steps.

Thank you.

Senator DOLE. Before I forget it, are you going to be able to participate in the new commodity distribution program that is part of the jobs bill?

Sister ABROMAITIS. I am not sure of that yet. I do not know.

Senator DOLE. That was one of the purposes of this program—to make certain that soup kitchens and others will benefit and not just some schools.

Sister ABROMAITIS. We have not received word about that right now, but we do get USDA food right now through Catholic Charities, and that has been of assistance to us.

Senator DOLE. Bob, you are next.

STATEMENT OF ROBERT GREENSTEIN, DIRECTOR, CENTER ON BUDGET AND POLICY PRIORITIES

Mr. GREENSTEIN. Thank you.[1] It is a pleasure to be here, Mr. Chairman, and I would just like to say before getting into some issues on food stamps, as one who has not talked to you in a bit, I think I speak for many other people who are concerned about food stamps and many other programs like this in saying that we very much appreciate the effort that you are doing with the bankers, and that many of us regard TEFRA as the outstanding piece of legislation in recent years. We think it was a magnificent piece of reform in many respects.

I came from a meeting yesterday afternoon of a growing number of organizations that have never worked on taxes before and we are planning to start working on them now.

Senator DOLE. Good, I hope so, because there is $20 billion at stake there in taxes that ought to be paid. I do not want to get into that issue here, but, when you are talking about food stamps or soup kitchens, the contrast is striking. What we are trying to do is to get people to pay taxes they already owe, and you would think we had shot the bankers.

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[1] See p. 216 for the prepared statement of Mr. Greenstein.

Mr. GREENSTEIN. Needless to say, our organization does not get any funds from the banks.

I would like to mention some important issues briefly and then get into more detail about my concern. I would like to shift the focus of what I had planned to talk about today because I read the testimony and heard some of what happened this morning when the administration was here.

It is not surprising to me, given all of the concern about food needs in the country, that this year the administration would come forward and present its proposals as not reducing benefits, as reducing errors in standardizing. If that was what they really did, there would not be much controversy about that sort of thing.

Unfortunately it is not what they do. You need to know, I think, that most of the figures you heard this morning are simply inaccurate. This is not just myself saying this. This is the Congressional Budget Office, this is the Congressional Research Service. All of us have looked at this. All of us have gone over the data. CBO is now producing a report based on computer runs that is not out yet. I hope you will look at it carefully when it does come out.

All of this analysis shows that the bulk of the cuts, the bulk of the savings, are benefit reductions and cost shifts to States, that there is little error reduction involved, and that is not where most of the savings come from.

To take one proposal for example, the supposed changes in shelter reduction, in fact the error reduction, according to our analysis—I am interested in seeing CBO's—will be only about a quarter of what the administration says, and in fact, the benefit reductions are very large, with about 3½ to 4 million households losing over half a million dollars per year in benefits. Some households gain benefits, but the net is still a several hundred million dollar reduction, and for many people a big reduction. These will be very substantial benefit cuts.

I would like to get back to the——

Senator DOLE. What about the error rate from 9 to 3 percent?

Mr. GREENSTEIN. I think that is fascinating, too. In every one of these there is some basic analysis and the results are quite striking. In this case, if you go, and I have done this, to the USDA backup and you walk through all of the data with them, their own analysis shows, and the Congressional Budget Office says precisely the same thing, that nearly all of the savings comes not from error reduction, but from sanctions.

In other words, what they are saying is that your proposal of last year was so well designed, and I am not just saying it; this is what their analysis shows, that by going down to 3 percent and changing the formula, they are not going to drive the errors lower by any significant amount; that your proposal that was enacted last year, already will succeed in getting the States to do whatever they are going to do that can be cost effective.

When virtually 100 percent, maybe it is 90 or 95 percent, but when nearly all of the additional savings are sanctions or cost shifting, without lowering the error rate significantly, you are not changing the cost of the program or lowering it. You are just shifting costs onto the States, and when the administration says that does not hurt recipients, I must respectfully disagree.

Where are the States going to come up with half a billion dollars a year? It is going to come out of AFDC. It is going to come out of medicaid. It is going to come out of other programs like that, where the constituencies are not strong at the State level.

If there were a proposal that really lowered error rates significantly more, as last year's did, you could look at that, but that route has already been traveled. This is just a cost shift, and ultimately a benefit reduction at the State level.

Let me say a few words on WIC and then close with some more comments on food stamps.

As you know, the recently enacted emergency jobs bill has $100 million for WIC. The funds were badly needed. We conducted a survey in March—I think this is the first time we are unveiling it—of States to determine what was happening in the WIC programs prior to enactment of the jobs bill. We found States all across the country were reducing WIC caseloads and that thousands of mothers and children were being turned away solely because there were no more WIC funds available to serve them.

Louisiana and Iowa were enrolling no new participants at all, not even pregnant women or infants with anemia or other serious health problems. Kansas was not enrolling any children over the first birthday, even if they had nutritionally related medical problems, such as anemia. Most other States had similar restrictions.

That stopped only when the $100 million came through, and only until September 30.

We now face a potential crisis at the end of the fiscal year. CBO estimates that with the jobs bill funds, the program will reach 2.75 million people at the end of the year, about a third of those eligible. The administration's budget has, by its own estimates, enough funds to serve 2.15 million. At that level, in October and the early months of next year, we will have to take 600,000 low income women, infants and children at nutritional risk off the program. To maintain the yearend level in fiscal year 1984 would require about $1.35 billion or about $300 million more than the administration is requesting.

Finally, I will say a few final words on food stamps. The administration has said that 80 percent of the savings in its proposals would come about by reducing misexpenditures rather than recipients' benefits. Our analysis indicates, in fact, that less than 10 percent of the savings come from error reduction.

At the same time, hundreds of millions of dollars in new benefit cuts would occur. The change in the earned-income deduction, for example, neither reduces errors nor simplifies the program. Under the current system, you do not verify work expenses. You multiply by 18 percent. Under the new system, you have to verify more. You have to determine if people work part time to pro rate the deduction.

USDA officials I have questioned have acknowledged to me that the proposal represents no simplification, and represents no error reduction. What it represents is a benefit cut. It will reduce benefits for most of the 1.4 million working, poor families on food stamps. A household with earnings at the poverty line loses $230 a year. A family working 40 hours at the minimum wage, while below the povery line, loses over $100 a year.

Under the standard deduction, as I have mentioned, 3 to 4 million households with high shelter costs would lose benefits. About 2 million of these households would each lose close to $250 a year in food stamps. Those whose benefits would be cut the most are those who now receive the largest shelter deductions. The higher your shelter bills in relation to income, the more that you would lose.

Hardest hit would be several hundred thousand elderly and disabled who now get the largest shelter deductions, some losing $400 to $500 a year, and while the impacts would be greatest in the North, every region would be hit. Even in the South, nearly one of every six households would lose nearly $250 a year in benefits.

The same type of problems, and I will wrap up now, attended most of the other or all of the other administration proposals in the food stamp area. The proposal to standardize food stamp benefits for AFDC households results in benefit losses for the poorest AFDC households. The proposal to fiddle once more with the household definition for the third time in 3 years penalizes unrelated families who share living quarters to save on rent, but are otherwise economically separate. The mandatory work proposal would, according to CBO, add so much to State administrative costs that it would virtually cancel out any Federal savings, and CBO just reported that there is no firm evidence yet available on whether savings exceed costs.

When the administration proposals are scrutinized carefully, there really is little to recommend them, and the reality, I believe, is that we have gone about as far as we can go in designing cuts in these programs. We do need to get error rates down, but this is now principally a function of improved management, and not of more legislation, and especially not of legislation that purports to reduce errors, but actually slices benefits to poor recipients and shifts costs to States.

[Questions submitted by Senator Helms to Mr. Greenstein and answers thereto:]

Question 1. According to your figures, about 10 percent of the 1981 and 1982 reconciliation changes were due to lowering the income limit, elimination of strikers and many students. Another 5 to 10 percent of savings were the result of "various changes to stiffen fraud penalties, tighten collection of overpayments, and similar provisions." Your implication seems to be that the remainder adversely affected individual households. What percentage of savings, according to your calculations, were achieved by the largest savings item in the 1981 act, the proration of food stamp benefits? What percentage, by the largest item in the 1982 act, the requirement that the States lower their error rates?

Answer. I relied entirely on Congressional Budget Office estimates. CBO estimated that the proration of benefits accounted for $505 million in fiscal year 1983 savings. This accounts for 36 percent of the fiscal year 1983 savings. By fiscal year 1984, this declines to less than 24 percent of the savings.

I would note that the proration of allotments is properly classified as a benefit cut. While it is not one of the harshest cuts, it does adversely impact some low income families. Many families do not apply for food stamps as soon as they fall into proverty, but try to struggle by for awhile. Such families may wait until they are out of food and money for the month and then apply for stamps. Proration assumes that some household income is still available for food for the rest of the month—but if the household has used up all of its food money during the first part of the month (the period before it applied for stamps), then proration will result in inadequate benefits for the family to eat at the level of the Thrifty Food Plan for the remainder of the month.

As for the error rate provision, it was not the largest savings item in the 1982 act, at least as far as fiscal year 1983 was concerned. CBO estimates that this saved $90

million in fiscal year 1983—or a little more than half of the savings from the reduction in the Thrifty Food Plan. For fiscal year 1983, this accounted for about 6.5 percent of the total savings from both years of budget cuts. In fiscal year 1984, it will account for 9 percent of the savings, still a small fraction of the total.

Question 2. I notice that you generally focused on the programs with an income "needs-basis" such as food stamps, but that you also included other noneeds-based programs like much of the school lunch program. Given the limited Federal resources, where should the Federal priorities be in funding these various programs?

Answer. The main avenues for reducing the deficit should be in: (1) broadening the tax base, closing tax loopholes, and tightening tax compliance; (2) reducing the rate of growth in the defense budget; and (3) restraining those non-means-tested entitlements where benefit structures are excessively generous for those who are relatively affluent. A prime example of a non-means-tested program which can be cut is the military retirement program. It is considerably more expensive than food stamps, provides 60 percent of its benefits to persons in the wealthiest fifth of the population, provides far more generous benefits than good private pension plans, and undermines our nation's military strength by encouraging premature retirement by some of our most skilled and experienced armed forces personnel.

I do not favor further cuts in the school lunch program. The program, including the portion of the program for the non-poor, has already been cut deeply.

Question 3. What information do you have to support the contention that the WIC program is serving "only a fraction of those eligible?" How are you defining "eligible?"

Answer. FNS recently conducted an analysis where it estimated the number of women, infants and children gracefully for WIC on income grounds to have been about 9 million in 1981. Undoubtedly this number is higher now, as increased unemployment has driven more persons into poverty. The Census Bureau tells us that the number of Americans living in poverty climbed from 31.8 million in 1981 to 34.4 million in 1982.

Data is not available on the degree to which the "nutritional risk" criteria reduce the WIC eligible pool. However, discussions with state and local administrators indicate that a majority of those meeting the income test also meet the nutritional risk criteria (a logical outcome, since the WIC program is preventive as well as remedial).

Question 4. What evidence do you have to support the contention that "most WIC clinics had long waiting lists?"

Answer: Until a year or two ago, local WIC agencies were required to report the number of persons they kept on waiting lists. These frequently showed 100,000–200,000 persons on waiting lists nationwide.

Question 5. You indicated that "food stamps by themselves provide few families with an adequate diet," and cited the Household Food Consumption Survey to indicate that food stamp households do not receive the recommended daily allowances for the basic nutrients. Are you familiar with information on what percentage of households in other income categories did not receive the recommended daily allowances for the basic nutrients?

Answer. In no income category do 100 percent of the households receive the RDA's for the basic nutrients. However, the Survey data shows that as income rises, the amount spent on food rises—and the proportion of households obtaining the RDA's also rises.

Question 6. Much of the research about the effectiveness of these programs seems to revolve around the RDA's—recommended dietary allowances established by the National Academy of Sciences. How firmly are these requirements established as "the" proper level? Some recent research seems to indicate that the RDA's are constantly evolving. Some nutritionists have suggested that what is recommended as the norm today may be too much or too little tomorrow. How strongly should we view the results which concentrate on RDA's?

Answer. While there is some uncertainty involved here, the RDA's are the best benchmark we have. We should be concerned when so few families whose food expenditures equal the food stamp allotment levels obtain the RDA's.

Senator DOLE. Thank you very much.

Judy, we are happy to have you here. Did you get any snow out there in Kansas?

STATEMENT OF JUDY FRICK, COORDINATOR, WICHITA JUNIOR LEAGUE'S CHILD WATCH PROJECT, AND PRESIDENT, KANSAS ACTION FOR CHILDREN

Ms. FRICK. It was pretty crummy when we left.

Mr. Chairman, and members of the subcommittee, I am Judy Frick, coordinator of the Wichita Junior League's Child Watch project and president of Kansas Action for Children, and I am one of your regular correspondents.[1]

I really appreciate the opportunity to be here today, and I am testifying about the activities of the Children's Defense Fund and the Association of Junior League's Child Watch projects. I am here today representing over 1,000 Child Watch volunteers from 39 States and the District of Columbia.

Our volunteers include college students, men and women associated with civil, religious, and fraternal groups, businessmen and retired persons. We come from different racial, religious, and economic backgrounds, yet we all share a common concern, and that is the welfare of our children.

And I would like to add, I think this is a really unique project in that it is a volunteer project, and none of us have any particular vested interests other than the welfare of our Nation's children.

The Children's Defense Fund launched the Child Watch project early in 1982 in cooperation with the Association of Junior Leagues. There are four program areas in which Child Watch volunteers have gone into: child care, child health, child welfare, and AFDC.

Each Child Watch project is a separate, independent effort and is responsible for developing its own final report and followup activities. In 1982 nine national voluntary organizations, in addition to the Association of Junior Leagues, collaborated with Children's Defense Fund on Child Watch. The Child Watch volunteers at this point have conducted approximately 2,200 interviews.

Because of the success of the project and the interest of the volunteers, CDF and AJL decided to continue the project for another year, and currently the project is in approximately 100 communities.

In the first year of Child Watch, approximately 30 individual Child Watch projects and several statewide projects shared their findings with the Children's Defense Fund. Virtually every report documented significant increases in requests for emergency services, and I think this is a point that I would like to make about the Child Watch projects. It is not just one or two reporting this. It is every single one, and that is true of many of the trends that we have discovered.

The requests for emergency services include requests for cash assistance, food, clothing and utilities. This increase in requests for the most basic elements of survival was a consistent theme throughout all of the Child Watch reports, and I know that is certainly true in Kansas where we have three Child Watch project sites.

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[1] See p. 227 for the prepared statement of Ms. Frick.

Whether the volunteers looked at health, child welfare, child care or AFDC, they found that the struggle for survival has not only intensified as a result of the budget cuts and economic downturn, but also has increasingly affected families and children, as indicated by the following examples.

In Johnson County, Kans., requests in the past year increased by 99 percent, while dollars available increased by only 9 percent.

In Bellingham, Wash., agencies such as the Salvation Army, Project Hope, Project Concern, and the Food Bank reported that requests for assistance in meeting basic needs, such as food, clothing, housing and medical or dental care have at least doubled in the last year due both to high unemployment and loss or reduction of AFDC coverage.

Nowhere is the struggle for survival more acute than in relation to food. Our Child Watch reports paint a dismal picture of families exhausting their resources and turning in despair to community agencies that are often poorly staffed, inadequately funded, and generally unable to meet these needs.

This picture extends from coast to coast, from areas where unemployment is high and also in even some of the country's affluent counties, as some of the examples will show.

For example, in Birmingham, Ala., St. Andrew's Parish soup kitchens served 1,200 children under 16 in 1981. That number more than doubled in 1982, and they anticipate serving 5,000 children in 1983.

In Wichita, Kans., the United Methodist Urban Ministries reported 385 requests for emergency food services in January of 1982, and 650 in March. The Community Food Bank served 1,600 families in December of 1982, and just barely 200 families in December of 1981, which is an incredible increase.

I would like to elaborate a little bit on the United Methodist Urban Ministries because I think it is a classic example of the private sector trying to respond to some of these needs, and also, you know, being from the Bible Belt, it is good to see the churches come to the aid of the community in these cases.

For example, United Methodist Urban Ministry now helps approximately 2,000 families a month with food requests. Their budget in one year's time has increased from $100,000 to $500,000, and they have only increased their staff by about two people, and they are now using about 50 volunteers. But I think the one thing that Rev. Martin Holler, who is the head of that agency, tried to say very emphatically is that the private sector cannot do it all. They are simply not equipped.

Furthermore, I think that in the case of an agency like the United Methodist Urban Ministries, they are only meeting emergency needs, and there is no way in which the needs of the family can be stabilized, and I think people expect that maybe once the economy turns around, that this will help. Well, for example, in the Wichita area in January there were 20,000 people who were unemployed, which is a 9.6 percent unemployment rate, and I think one of the things that has been emphasized repeatedly in the second round of Child Watch interviews, which we did in January, is that even when more jobs are available, many of these people

are not going to return to the same jobs. The jobs are going to be obsolete, and so there is a great need for job retraining.

Scattered through the Child Watch findings are references to the difficult choices families must make. One of the most poignant phrases appearing in the Child Watch report is "heat or eat." These three words cannot begin to convey the agony of thousands of families as they decide whether to pay their utility bills or to buy food for their children. "For Want of a Nail," the Child Watch report of the Massachusetts Advocacy Center, quotes the director of a private social agency: "People have had to cut out things like telephone and even electricity in order to be able to eat."

The director of the Martin Luther King Urban Center in Kansas City stated that his clients had to choose whether to pay their bills or buy food. They cannot choose child care.

In Montgomery County, Md., an affluent county, a woman with a 4-year-old child who lost her child care subsidy had to choose between food and child care. Without child care, she had to give up her job and rely on AFDC.

In Massachusetts and in other communities Child Watch volunteers have been told of families who are requesting or contemplating placement of their children in foster care because they cannot afford to take care of them, and I know this is true in Wichita also. In our Child Watch interviews there are agencies indicating that voluntary relinquishment is on the increase, and I think it is very difficult for us to imagine what it must be like for a family to contemplate giving up their children. It is incomprehensible.

I think that the foregoing illustrates the interrelationship of all of these problems. It is not just a matter of food. It is a matter of utilities, child care, and a number of other needs.

The difficulty experienced by low-income families in stretching their budgets to provide enough food was documented in the Wilmington Child Watch report and also in a study conducted by Isabel Woloch at Rutgers University School of Social Work. In Wilmington two food banks have data indicating that approximately 50 percent of the families receiving their emergency food packages are AFDC recipients. In the Rutgers study of 130 families whose AFDC benefits had been terminated, 39 percent of the respondents said that since going off welfare, there have been times that their families have not had enough to eat. Eighty percent of these individuals said this happens more often now than when they were receiving AFDC.

The consequences of poor nutrition were mentioned in several Child Watch reports. For example, the Des Moines Child Watch report estimates that nearly 50 percent of the Indo-Chinese children are developing anemia due to undernourishment.

A number of Child Watch reports included information about the special supplemental food program for women, infants, and children, WIC. In many communities this valuable and cost-effective program has become less available to needy mothers and children. For example, in Indiana, 45 counties out of 92 have no WIC program. Of these 45 counties, 25 have not a single food pantry. In Monroe County, Ind., it is estimated that 2,800 residents are eligible for WIC, but funding is available for only 1,000, which is just a little more than a third.

In Tampa, 11,800 county residents are eligible for WIC, and yet only 4,000 are being served, just a little more than a third. There is a waiting list of 366. WIC is no longer available for breast-feeding women or for children between 6 and 12 months. Outreach and publicity about WIC have been curtailed to limit the case loads.

In Kansas as of March 1983, the WIC waiting list included 399 women, 495 infants, and 1,633 children. An adequate diet is no longer considered a risk factor for children over the age of 2 in Wichita, and the only ones who are now being served are those with very special medical problems.

I think in regard to the Wichita area, I know that peanut butter has been removed from the list of foods that WIC serves because it is too expensive. In Wyandotte County, the WIC coordinator reported that WIC is the sole source of nutrition for many of the new poor. These are people who are not accustomed to being on the welfare rolls or needing to seek help. As far as the State of Kansas is concerned, I talked with the State WIC coordinator, and she said, "It does seem a contradiction that an agricultural State cannot feed its own."

Child Watch volunteers reported on the impact of cuts in the child care food program. These cuts coming at the same time as cuts in title XX social services block grant have played a significant role in the erosion of child care services.

The Massachusetts Advocacy Center Child Watch project documented the effects of the child care food program cuts, and I have several examples, but I will just give one. The Sara Haskins Community Center in North Adams had to drop one snack a day. The center which serves a large number of single and teenage parent families also lost $10,000 in transportation funds, and two children could not afford transportation costs. Two teachers, plus the center's educational coordinator, were laid off.

Other Child Watch projects report similar findings. For example, parents interviewed by Tampa's Child Watch volunteers report that for the first time their children are coming home hungry. Child care providers in Tampa have experienced increasing difficulty during the last 6 months in providing adequate nutrition for the children in their programs.

I have recited a lot of numbers, but I think that it is important to remember that there are real people behind these numbers, and I wish that you could have been with me when I went to the United Methodist Urban Ministry and saw the people lined up, waiting for some kind of assistance. I mean there is a real dispair and lack of hope that was very evident to see. I also had the same experience in going to SRS, our State welfare agency, and being guided through a waiting room filled with people seeking AFDC benefits.

I think that it really is important to remember that these are real people, and it made an incredible impression on me to see some of them standing there waiting for some of these benefits.

These findings, all gathered locally by Child Watch volunteers, paint a grim picture of the difficulties being faced by children and families across the country. The trends are unmistakable and alarming. Increasing numbers of children are going hungry. Large

numbers of families are having to make do without the basic necessities of adequate health care, food, clothing, and shelter.

In the long run, increases in WIC waiting lists will cost more, not less, Federal, State, and local dollars, and I think that is really an important point. One of the things we can see in the Child Watch projects is that there is a total lack of preventive services. Everything seems to be crisis and emergency oriented, and it is hard to imagine how much we are going to pay for that in the long run.

Cuts in nonfood programs, such as AFDC, energy assistance, title 20 social services block grant, housing subsidies combined with cuts in food stamps, WIC, and the child care food program are pushing families into crisis. The words of one interviewee from Kansas, I think, summarize the current situation: Cuts in the areas of food stamps, school and day care meals, public housing and emergency assistance, combined with reductions in the number of families eligible for AFDC and the high unemployment rate, all add up to more crisis for families. The private sector cannot meet all of the needs created by these reductions. It will require the joint efforts of all segments of the local communities, schools, voluntary agencies, churches, business, government, and involved citizens. I do not believe that we will know the entire impact of the budget cuts for several years, but I do not know if we wait to find out, it will be too late for thousands of children and families in the State of Kansas.

Mr. Chairman, we welcome your committee's concern about the nutritional needs of our Nation's children, and urge you to act before it is too late, not only for the children of Kansas, but for the children of the other 49 States, as well.

Thank you.

[Questions submitted by Senator Helms to Judy Frick and answers thereto:]

Question 1. You indicated that the Child Watch projects have been in existence since early 1982. You also indicated that "virtually every report documented significant increases in request for emergency services". What was your "base period" against which to compare the information?

Answer. Child Watch projects began in early 1982, and continue at this time. Each project sought local agency cooperation to determine what had happened to children. Since local agencies keep their data by a variety of accounting periods (many use calendar or state fiscal years rather than the federal fiscal year), information included in the Child Watch reports does not have a uniform "base period," but varies according to the source. In general, the data usually compared a specific time period in 1982 against a similar time period for the previous 12 months.

Question 2. What evidence do you have that any of the additional requests were "as a result of the budget cuts"?

Answer. Our testimony stated that ". . . the struggle for survival has not only intensified as a result of the budget cuts and economic downturn, but also has increasingly affected families and children . . .". In some cases it was possible to determine that particular problems occurred as a result of the budget cuts, but in many situations it was impossible for Child Watch teams to ascertain whether the additional requests were due to budgeting or economic factors. Consequently, our testimony ascribed the increased need to both the budget cuts and the economic downturn.

Question 3. You made reference to various reports which included reports of increased frequency of low birth weights, failure to thrive, and anemia. Do you have any specific, documented evidence on the prevalence of these conditions, or the cause for them?

Answer. The following examples were reported to Child Watch interviewers in the geographic areas cited. The geographic information came directly from data gathered from local public officials.

"One of the most common serious health problems among children and pregnant women served in the clinics interviewed is poor nutrition (Bergen County, New Jersey). Hospitals reported many more babies with low birth weights, which they attribute in part to cuts in medical aid and nutritional deficits" (Mercer County, New Jersey).

"In addition, due to the malnutrition, anemia in children and women is very prevalent. This is especially being seen in the prenatal clinics and will be reflected in the babies. The anemia is being seen across all ethnic groups—blacks are the healthiest" (Tampa, Florida).

"Another health problem needing preventive measures is the failure to thrive; caused by nutritional and/or environmental deficits which preventative education of the parent and child and early detection help to prevent" (Wilmington, Delaware).

One of the special characteristics in Polk County is the large Indo-Chinese population. This population has been particularly hard hit by the AFDC reductions. It is estimated that nearly 50% of the Indo-Chinese children are developing anemias due to undernourishment. Several community agencies and churches are attempting to resolve this problem through community kitchens and food pantries but the number of people needing these types of services are beginning to exceed the ability to provide such. Generally, a family of three will receive approximately $127 per month in food stamps. Additionally, even if both parents are living in the home only one is eligible to receive an AFDC income supplement (Des Moines, Iowa).

Question 4. You made several references to WIC and the contention that the program is serving only a portion of those eligible? Again, do you have any specific information to support this position? How are you defining "eligible"? What information do you have to support the idea that there are long WIC waiting lists?

Answer. Local WIC programs use two indicators of need. The first is the proportion of eligible mothers and young children served. The number of eligibles is derived from U.S. Department of Agriculture estimates of the number of pregnant women and young children below the maximum eligibility income level. These estimates have not been updated to reflect the increases in poverty due to the economic downturn and budget cuts (in AFDC and SSI). The second indicator is the extent of the waiting lists containing already certified families who are not served because of a shortage of funds. For example, at the time our project in Massachusetts (a state not hard hit by the recession) gathered its information, the program there had a waiting list of 2,000 mothers and children, and was serving 16.9 percent of all the eligible mothers and children. Because the Emergency Jobs Bill funds are now available, the waiting list is nearly eliminated (in other words, newly certified families can receive services) and they are serving 25 percent of the eligible population. Unfortunately, we are unable to report national data because the Food and Nutrition Service has stopped collecting waiting list counts on its monthly reports. We would greatly appreciate this Committee's suggestion to the federal agency that it is difficult to monitor the operation of WIC without the answers to the questions you ask of us, answers that were previously available from the federal operating agency itself. Since local agencies do not know whether the Emergency Jobs Bill supplement will continue in fiscal year 1984, they do not know whether to extend certification among the currently unserved but eligible population, or to prepare to drop existing clients from the program (which, in Massachusetts alone, might be as many as 9,000 mothers and young children). Of course persons dropped from the program because the federal funds are reduced return to the waiting lists.

Question 5. Regarding the centers participating in the Child Care Food Program which you mentioned, do you have any information on what percentage of those served by any of the centers are in the lowest income category—that is, children from families with incomes below 130 percent of poverty who are thus eligible for free meals?

Answer. Because there were more than 100 Child Watch projects in all parts of the country, there are a great variety of different types of child care centers serving a wide range of families. Included among those interviewed were Head Start and Title XX programs. The largest uniform group of centers are Head Start program sites. These, by law, require that 90 percent of all children served are served from families with incomes below the poverty line. The next largest group are those under contract to state welfare departments tracing back to the old Title XX programs, and serving primarily children who were or had been eligible for AFDC. Where figures on the participation categories of children were collected, they generally showed two thirds or more of the children were eligible for either free or reduced price lunches.

Senator DOLE. Thank you very much. Your entire statements will be made a part of the record.

We are going to study the record. Since they have had an opportunity to hear many of the witnesses, I am going to ask the Department to comment on the testimony being made so it will be a part of the record. We are going to have to start making some policy judgments, and I am not certain what the budget resolution is going to contain for this particular area. They are working on it now, in a meeting today. They are working on the entire budget process, and, of course, then we will have an obligation to fulfill whatever Congress may finally pass, if the House and Senate get together on a budget resolution.

Then it is the responsibility of this committee and this subcommittee to try to meet certain targets. You know, there are many cases where people out there need assistance, but I am not certain the Federal Government has all of the responsibility either—some may be local or belong to the States. As you said in your last statement there, some responsibility should be with the private sector. They cannot do it all, but they can probably do more than they are doing.

So we are going to try to do the best we can, because there are some serious problems which are exacerbated by the prolonged recession.

You may have some of that material in your statements about what the impact of the recession has caused, and there is no doubt in my mind that the food stamp program expenditures go up and down, based on the recession. WIC may not fluctuate so much, but the food stamp program does, and certain other programs do as well.

So we are going to do the best we can to make the right decisions with the money that we have available. If we do not do things right, I assume we will hear from the people.

If anybody has any other statements they would like to be made a part of the record—even if you were not on the witness list, if you thought of anything while you were sitting here today that relates to this hearing—we will be happy to include those as part of the record.

Thank you very much.

[Whereupon, at 3:58 p.m., the subcommittee adjourned, subject to the call of the Chair.]

APPENDIX

STATEMENT OF HON. DAVID H. PRYOR
A U.S. SENATOR FROM ARKANSAS

Mr. Chairman, I am pleased that you have called this oversight hearing on the nutritional status of low-income Americans in the 1980's. Because this country has been hit with a recession and high unemployment, we in Congress need to know whether existing federal assistance programs have provided adequate nutrition for individuals the programs were designed to serve.

At a time when we are asking farmers to cut back on their production and working to expand our commodity exports, we need to be sure that we are maintaining our commitment to feed the hungry in this country with meals that meet their nutritional needs. We need to see whether the food stamp program is living up to its description as the "First Line Defense Against Hunger," and whether other programs such as WIC, Child Care, and School Lunch are responding to the individuals they should assist. Hearings such as this will help us decide on the budget and the future of these important programs.

Mr. Chairman, I commend you for holding these hearings and I look forward to the testimony of the witnesses.

STATEMENT OF HON. JOHN C. DANFORTH
A U.S. SENATOR FROM MISSOURI

Mr. Chairman, I wish to thank you for the opportunity to participate in this evaluation of the nutritional status of low-income Americans. Recently, I took a trip to my home state of Missouri, which reconfirmed for me the fact that hunger and malnutrition have become tragic realities for growing numbers of needy Americans. I returned from this trip with a great sense of alarm about the nutritional status of low-income Americans and concern about efforts to reduce federal responsibility in this area--especially at a time when many people are still struggling with the problems of a sluggish economy and high unemployment. I would like to share with you briefly some of my experiences, observations, and conclusions from this trip.

Because of my growing concern about the domestic hunger problem, I went to St. Louis and Kansas City, at the beginning of March, to visit and talk with public and private providers of food aid, as well as with recipients of this assistance. I met with representatives of the Missouri Department of Social Services, as well as with members of numerous private volunteer organizations that provide food relief--including church groups,

food banks, and emergency food pantries. In addition, I met with several medical and nutrition experts to discuss the health consequences of malnutrition. In such places as a welfare rights center, food pantries, and relief shelters, I also met with recipients of food aid.

I obtained a sense of the growing extent of the problem and the limitations of the aid provided by the food stamp program when I spoke with local representatives of the Missouri Department of Social Services, who administer the food stamp program and process applications. They told me of increased participation in the program due to unemployment. Even though many needy families are no longer eligible to receive food stamps, participation in the program has increased because eligible households qualify for more aid. Local representatives also noted that they are "recycling" more and more applications from former participants in the program, and they expressed the view that the monthly allotments of food stamps are not sufficient to meet the needs of the low-income families participating in the program--especially in light of increases in the cost of living.

They also described the phenomenon of the so-called "new poor"--the newly unemployed, more affluent poor, who suddenly have no income and whose unemployment compensation has run out, but who find themselves disqualified from participation in the food stamp program because of asset limitations used to calculate eligibility. They indicated that they are referring more and more families to private volunteer agencies for food when their food stamps run out or when they are ineligible for the program. These program administrators also expressed concern about the delay in the processing of food stamp applications because of the heavy caseload, and about the constantly changing regulatory maze that increases inefficiency.

I heard many of the same concerns about the food stamp program raised by the participants, themselves, including a group I met at a Kansas City Welfare Rights Center. These food stamp recipients spoke of running out of stamps before the end of the month and then going to soup kitchens and food pantries. They complained about delays in processing their applications and requests for recertification. But while they aired these complaints, I must note that one woman expressed a sentiment that I heard repeated several times during my trip. "I'd rather be able to feed myself," she said, "than to have someone else feed me."

Unfortunately, because they are unable to feed themselves, these low-income Americans find it necessary, in growing numbers, to rely on aid from private volunteer relief organizations, as well as food stamps. This was confirmed for me in my discussions with the private volunteer agencies. Representatives of food banks, soup kitchens, and pantries in the St. Louis and Kansas City areas told me repeatedly of increased demands for food assistance, that for most of them the demand has doubled or tripled over the past year, and that they regularly observe a greater demand for assistance and service at the end of the

month, after food stamp allotments have run out for many households.

I learned, too, that many of the food pantries and kitchens have had to limit their service, because they lack the resources to meet the increased demand for aid. Thus, many limit an individual or household to only a few meals or relief packages each month. Others that once served the entire St. Louis or Kansas City metropolitan area now restrict their service to those living in the immediate vicinity. Many representatives of these relief agencies and organizations commented, too, on the growing presence of the "new poor," who are placing increased pressure on their already overburdened resources.

I also discussed the health consequences of malnutrition with doctors and staff members of Children's Mercy Hospital in Kansas City, who stressed the special vulnerability of pregnant women, infants and children to illnesses linked to malnutrition--a special vulnerability that is exacerbated greatly for low-income families. They noted the additive, adverse effects of malnutrition on health and growth, and the resulting long-term health costs that are borne by society.

Like everyone I spoke to about the program, the respresentatives of the hospital also emphasized the importance of WIC, the Special Supplemental Food Program for Women, Infants and Children--a program which has proven to be a vital and cost-effective means to promote long-term health for low-income families and to combat infant mortality, low birth weight, and other health problems linked to malnutrition. I know that Dick Blount, the Missouri WIC program director, who does an excellent job, will testify about the program at this hearing, but I would like to note some disturbing figures about the limited scope of this important program in Missouri. Missouri has an infant mortality rate that is above the national average; however, because of funding limitations, participation in the WIC program is limited in my state to only one-third of those eligible. Only about 50,000 of the 150,000 women, infants and children in the state, who come from low-income families and whose health is at risk, can now participate in this program.

During my visit at Children's Mercy Hospital, I asked the staff if they had any detailed information, hard data, on the nutritional status of children in Kansas City. They noted the lack of any comprehensive, constant monitoring system with current data, and they indicated that such monitoring would be of great value. A nutritionist at the hospital added, however, that she had done a random sampling or study of inner city elementary schools, based on the health records kept by school nurses. Her sampling produced disturbing results; she found that 11 of 85 children, from kindergarden to fifth grade, had records that showed a continued pattern of weight loss, instead of the normal, progressive weight gain pattern of healthy, well-nourished children.

The hospital staff also made another significant point. They stressed the importance of nutrition training and education, that it is not enough to feed needy people, especially children. If

their good nutrition is to be maintained, it is necessary to establish models and teach them good eating habits. I think this should be remembered when consideration is given to the administration proposal to eliminate federal funding for nutrition education.

As for another especially vulnerable group of low-income Americans, the elderly, I was told on my trip that more and more elderly citizens, who live on a fixed income, are seeking relief from private volunteer organizations. A representative of the Commission on Aging in St. Louis told me that as many as 30,000 residents of the city, one-third of the elderly population of St. Louis need supplemental nutritional assistance, that many have had to trade off medicine to buy food, and that some are periodically hospitalized to assure that they are properly fed.

Finally, I would like to share with you the experience I had when I ate dinner with a number of other "guests" at a Catholic Workers' Relief House in Kansas City. These people shared with me a meal that came entirely from a grocery store dumpster. Not only were they hungry, but many of them expressed to me a sense of frustration and hopelessness that I will not soon forget. They told me of their fruitless efforts to obtain jobs and even find places to live. One young couple in particular stands out in my mind. The man had lost his job and had not been able to find another. His wife was pregnant and they had no idea where they would spend the night. I asked them whether they had applied for food stamps or WIC. They responded by asking me what good it would do, because they had no place to stay and prepare the food.

What conclusions do I draw from all this? First, there is no question in my mind that hunger and malnutrition threaten many low-income Americans, that there is a growing need for food aid, and that this need will remain with us even at a time of economic recovery, because of structural unemployment as our economy changes and adjusts to new demands and technology.

Moreover, I believe that because of this need for aid and the growing numbers of Americans who are not being covered by the federal food aid programs we cannot reduce support for these programs. To be sure, we must continue our efforts to reduce the deficit, but we must find other areas for budget cuts. We cannot allow the past success of our federal food aid programs in reducing hunger and malnutrition to slip away.

Short-sighted cuts in these programs now will only threaten the health of our citizens and increase long-term medical costs for our society. In fact, we should increase funding for such cost-effective programs as WIC, and also consider the restoration of funds for the food stamp program in order to increase benefits or coverage of this vital component of our social services safety net.

STATEMENT OF DR. DAVID RUSH, PROFESSOR OF PEDIATRICS, OBSTETRICS, AND GYNECOLOGY, ALBERT EINSTEIN COLLEGE OF MEDICINE, MONTEFIORE CENTER, BRONX, N.Y.

My name is David Rush, and I am Professor of Pediatrics and of Obstetrics and Gynecology at the Albert Einstein College of Medicine--Montefiore Center in the Bronx, New York, where I am head of the Division of Pediatric and Perinatal Epidemiology. I am honored to be invited to discuss with you the nutritional status of poor American children and pregnant women, groups with which I have been concerned for some years.

I might briefly describe my background. After undergraduate and medical education at Harvard, I took training in Internal Medicine at the University of Illinois, and in Pediatrics at the Children's Hospital Medical Center in Boston, was a research fellow at the Harvard Medical School, and held faculty appointments at the University of Rochester and Columbia University prior to my present position. I am a Board Certified Pediatrician and also an epidemiologist. My initial epidemiologic training was as an Epidemic Intelligence Service officer at the Center for Disease Control of the United States Public Health Service on duty in Kansas City, Kansas and Buffalo, N.Y. I was recently president of the Society for Epidemiologic Research, was project director for eight years of a nutritional supplementation study among poor pregnant women in New York City funded by the National Institute of Child Health and Human Development, have been Principal Investigator of several research grants from NICHD on issues of cigarette smoking, nutrition, and social factor during pregnancy and early childhood and their effect on the growing fetus and child, and was asked by the Department of Agriculture in the fall of 1981 to become Principal Investigator of the National Evaluation of the Special Supplemental Food Program for Women, Infants and Children, the WIC Program, after that evaluation had been in the field a little over two years. I am a member of the Human Development and Aging Study Section of the National Institutes of Health, am a consultant to the Agency for International Development (AID) of the Department of State on studies and programs aiming to lower perinatal and infant mortality in India, and have been on the Scientific Advisory Panel of the Evaluation of the School Nutrition Programs of FNS since the inception of that study. Although I have not had formal training in nutrition, I have spent many years studying nutritional problems.

There are several issues which I would like to address today. The first is my interpretation of what limited information does exist on the effect of nutrition during pregnancy and early childhood on the viability and development of American children. The second is to give some thoughts on why this information, that we, as a society, sorely need, is so flawed and limited, and the third is to give some personal thoughts about how we might remedy some of these problems.

I am convinced that we know far less about both the current nutritional status of our population and the effects of nutrition that we should. For instance, we cannot assert, with any

certainty, whether there has been change in the health and tritional status of poor pregnant women and their childr ver these last few years. There may have been, and we rightly c be shocked that such a seemingly straightforward question cannot be easily answered, but it cannot. Because of this lack of knowledge, it is now impossible to allocate intelligently resources or wisely attempt to improve either the nutritional status of the population in general or of pregnant women and young children in particular.

I assume I have been invited to talk with you because of my responsibilities in evaluating the WIC Program. I am chagrined by our inability to do more than we can, both because of the weakness of available methodology, and lack of resources. I have now met many people who are toiling in the WIC Program to do their best to deliver high-quality services to the needy, at every level, from neighborhood field workers through the senior executives at the state and national level. I have been moved by the dedication and commitment of these people, and by the earnestness and vigor with which they carry on this difficult work. I am also deeply impressed by their conviction that the program is doing much good for those who are being served. It is now our profound responsibility to assess whether this conviction is reflected by carefully and systematically measured changes in nutrition, growth, health, and psychological integrity.

We know far more about the effect of nutritional changes in pregnancy in laboratory and commercially important animals than in the human. The findings of a recent review of the effects of change in intake of protein and calories during pregnancy on human fetal growth and viability, which includes our work in New York, can be summarized fairly straightforwardly (Rush, D., Effects of Changes in Protein and Calorie Intake During Pregnancy on the Growth of the Human Fetus, in Effectiveness and Satisfaction in Antenatal Care, Enkin, M. and Chalmers, I., eds, Clinics in Developmental Medicine, Numbers 81/82, Spastics International Medical Publications, J. B. Lippincott Company, Philadelphia, pp. 92-113, 1982).

First, in studies of poor pregnant women throughout the world, and where research designs are adequate, the range of change in birthweight from nutritional supplementation during pregnancy is consistent, and less than we had hoped. The key criterion for adequacy of research design is that women who voluntarily cooperated in taking extra or different food were not compared with those who chose not to cooperate. Women who are more cooperative and committed to their own well-being, and that of their unborn children, are likely to be different from their counterparts in many ways, not only in their diet. Since we must assess relatively small changes, and in subtle indices which are sensitive to differences in education or social status, such as birthweight or the intelligence of the child, comparisons of cooperators and non-cooperators may give overestimates of program effects.

The second generalization, not specifically germaine to this testimony, is that our assumption, held universally twenty years ago, that protein is the likely limiting nutrient in diets of the

poor at all stages of the life cycle, turns out not to be true. We were shocked when we found that supplementation with food of very high protein content caused depressed birthweight, but the same result turned out to be imbedded in all other studies which used supplements of high protein concentration. The results, of those studies tended to be dismissed by their own authors, probably because they conflicted so strongly with the then held beliefs of the scientific community. When faced with discordance between data and belief, belief tended to dominate.

We thus know that if poor women, in many different parts of the world, are offered supplementary feeding programs during pregnancy with balanced, rather than high concentration protein foods, that birthweights can be raised around 40 to 60 grams, or one and a half to two ounces. What we do not know is whether this small change in birthweight increases viability or improves long term development. While birthweight is very strongly associated with survival, we have not been able to assess whether these small increases in birthweight following nutritional supplementation lead to improved survival, since no studies of supplementation have been large enough to give a reasonable test. In the United States, death in early childhood is now so infrequent that a very large number of pregnancies must be followed to test with any certainty whether feeding was effective in decreasing it.

We also assume that increased birthweight is a surrogate for better child development. This is an unproven assumption, which cannot be tested without large studies, over a long period of time. This is both expensive and tedious. For instance, in our own large study in New York (Rush, D., Stein, Z., Susser, M.: A randomized controlled trial of prenatal nutritional supplementation in New York City. Pediatrics 65:683, 1980.; Rush, D., Stein Z., Susser M.: Diet in Pregnancy: A Randomized Controlled Trial of Nutritional Supplements. New York, Alan R. Liss, 1980), we were unable to convince our funding body to allow us to examine all children beyond one year of age, to school age, when developmental assessment can be better judged and is more likely to be associated with later childhood and adult intellegence.

Our knowledge of the effects of feeding programs in pregnancy and in early life on behavior and intelligence is even weaker than for somatic growth and survival (Rush, D., The Behavioral Consequences of Protein-Energy Deprivation and Supplementation in Early Life: An Epidemiologic Perspective. In: Nutrition and Behavior, Galler, J.R., ed., Vol. 5 of Human Nutrition: A Comprehensive Treatise. New York: Plenum, in press).

It is vexing to need to create policy in spite of such ignorance. The WIC program is no exception. The first large evaluation of WIC was performed early in the life of the program. Very few women were studied, and the conclusions that were drawn were flawed by several technical limitations. For example, results for those who sought care and received benefits early in pregnancy were compared to those who entered the program later. This less than optimal comparison was compounded by somewhat confusing analysis. Subsequent evaluations of WIC have been

sporadic, on limited populations, in geographic areas which are not likely to be representative of the total program, and not at the highest levels of scientific rigor (see Graham, G.G., Greenberg, B.L. Comments on WIC: Special Supplemental Food Program for Women, Infants, and Children. September, 1981, prepared for OMB). All of the evaluatory efforts of which I am aware, and I have become familiar with most, have profound limitations. It is not appropriate to use this forum to discuss their technical inadequacies, but we do not know whether the WIC Program has been effective, either on the surrogate measure of birthweight, or the more important outcomes of survival, or hematologic, somatic, behavioral, and intellectual change in the child. We do not even know whether the ongoing nutritional and other behaviors of the family have been modified. This does not mean that we can conclude that the program has been ineffective, but rather that we lack enough information to make any secure judgement. We have thus been remiss in our responsibilities to the millions of poor women and children for whom this program is intended, and to the thousands of dedicated people trying to make the program effective.

We do hope to remedy some of these problems in the current evaluation of WIC.

When approached by the Department of Agriculture to direct the WIC Evaluation, I had serious reservations. I was busy enough already, and the evaluation was to be left with the same prime contractor, Research Triangle Institute in North Carolina, who had already been working on it for two years. My injection into the work could have caused resentment or hard feelings, but there has been a good working relationship, and we have gotten along well. One reservation remains operative: about a million and a half dollars, of the five million dollars allocated for this evaluation had already been spent, and fiscal stringency has proved to be an ever present, and at times negative, constraint on our efforts. These reservations have been overridden by the value and importance of the study. We all need a balanced assessment of the merits of this ambitious program. Also, this was a unique opportunity, not heretofore available, to have a study large enough to test for effects, not only on surrogate measures like birthweight, but for the more important programmatic goals of reduced mortality, and optimal child health and development. The first evaluation of the program was done on too few subjects and in too few sites, as was the newer study which these efforts have supplanted. WIC is managed by 84 state and Indian tribe agencies, through approximately 1,600 programs, with services offered at some 5,700 sites. The past, and now superceded, evaluations, were at no more than 12 to 18 such sites, with a scant few hundred women involved. In contrast, we currently have field efforts ongoing in 57 areas around the country, and at nearly 200 sites. We should be recruiting nearly 7,000 poor pregnant women, one quarter to one-third, a comparison group from public prenatal clinics where WIC is not offered, and about 3,000 pre-school children, half to two-thirds WIC recipients, and the rest comparison children of comparable socio-economic status.

We recognize that there are inherent and inescapable problems in assessing the effect of WIC benefits currently. On one hand, many of the professionals in the program feel strongly that because of reduction in access to and possible reduction in quality of health care for the poor, WIC benefits may not be optimally utilized, since WIC is predicated as a service to be coordinated with, and to be an adjunct of high quality prenatal and young child health care. On the other hand, WIC is now a mature, ongoing program. Dedicated staff seek those at highest risk of pregnancy problems in order to make maximum use of limited benefits. Thus, those who do not receive benefits, on the average, will be at lower risk than those receiving them. Although we can attempt to identify risk characteristics, it is extremely difficult to do so with precision, and thus WIC may appear less beneficial than it really is when recipients are compared to non-recipients who are, on average, likely to be at lower risk. (The birthweight difference demonstrated by Doctor Kotelchuck's study in Massachusetts is probably an underestimate for this reason. He found an overall difference of 20 grams associated with WIC benefits, but he could only crudely match WIC beneficiaries with control women, who were likely to have been more privileged.)

Also, WIC has now existed for a decade, and some of its programmatic goals have been incorporated into American prenatal care. For instance, diet during pregnancy is now considered far more important than in the past and weight gain during pregnancy is no longer so severely limited. Thus, women who are not directly served by WIC are receiving prenatal care which has been influenced by the existence and presence of WIC in American society for the past decade, and those not directly receiving WIC services can hardly be considered free of the effects of WIC. Difference between them and direct beneficiaries may be an underestimate of the effect of the program. (Indeed, programmatic success might mean that, whenever direct benefits were not available, other agencies or the individuals themselves might substitute comparable services from other sources.) Thus, any study of current beneficiaries may give a falsely low estimate of the benefit of the WIC Program. We are contending with this problem with another large (and somewhat audacious) study of 23 or 24 states, to include perinatal outcomes in 1,600 counties, over the past decade. Duration of pregnancy, birthweight, and infant survival will be related to the introduction of WIC into a county and the proportion of likely eligible women served. In this massive effort, we will initially process about 50 million birth certificates, as well as data on mortality and WIC benefits, data from the census, and on health care within counties, such as the presence of neonatal intensive care, Maternal and Infant Care projects, Improved Pregnancy Outcome projects, the rate of induced abortions, etc. We would have much preferred not to study counties, but rather individual women who received benefits compared to those who did not, but this proved to be impossible, since no lists of past recipients exist that could be linked to birth outcome.

Indeed, we had hoped to do more. Because of limited funds left to complete this extensive evaluation, more comprehensive than

has ever been previously attempted, we have had to forego several elements, and are continuously confronted with efforts to cut back further to compensate for higher interim costs than our prime contractor had originally predicted. Such stringency is understandable, given the obligation to be as efficient as is possible, but may not be cost-effective, given the very large expense of the program, and the relatively small cost of this evaluation. For instance, we had planned on evaluating anemia and iron deficency in the pregnant woman, but this is no longer possible. We had also hoped to follow up these thousands of women and their children during the child's first year of life, to judge whether the WIC Program prommoted breastfeeding, and to assess the development and health status of the infants whose mothers had been studied during pregnancy. We are attempting to do this through support from private sources, or a supplementary grant from other governmental agencies. Obviously, it would be better not to spend so much time raising funds, but in doing the research; but that is a fact of our contemporary lives. It would not be responsible if I did not mention some long-term problems that underly the paucity of knowledge on the effects of nutrition during pregnancy and early childhood. In my estimate, each of these problems can be addressed by governmental action, by you in Congress, and by the executive branch.

First, there are very few scientists skilled in the quantative evaluation of community and public health nutrition, or epidemiology as applied to nutrition. We desperately need training programs of high quality in these areas. We would have trouble currently staffing such training programs, if they were now funded. On the other hand, unless long-term personnel needs are addressed now, future prospects will be dim.

Second, research on these problems is fragmented, and, not of the same competitive, high quality, as in many other research fields. I have been responsible for the scientific program for the Society for Epidemiologic Research, and the epidemiology sections of the American Public Health Association, the Society for Pediatric Research, and the American Pediatric Society, and have thus had to read and evaluate thousands of research abstracts, many research papers for scientific journals, and many research proposals coming to our NIH study section. The research in this field is not good enough to serve the needs of our society. There must be a focussed attempt to support public health nutrition research and evalation, with careful ongoing outside peer review and monitoring. There was a fine statement on the evaluation of WIC by the Advisory Committee on Nutrition Evaluation (Nutrition and Health Benefits of the Supplemental Food Program for Women, Infants, and Children; FNS-165, USDA FNS, 1977). That group has not remained convened, and their role has not been institutionalized into ongoing nutrition research.

The contracting process for soliciting research efforts is less than ideal. It is a matter of chance that a university researcher such as myself has become involved in this effort. We rarely have the available administrative and technical resources to respond to complex Requests for Proposals in the very brief time that is usually available. Large research organizations,

usually not universities, can and do respond, but they have not generally had long-standing interest and deep immersion in the relevant scientific issues.

We need more not-very-glamorous, but absolutely essential, research in nutritional methodology. There should also be more funds available through grants to stimulate innovative, peer-reviewed research. Whether all these needs might best be met by an entity such as a National Institute of Nutrition is difficult for me to say, but the current state of affairs is not optimal. Both for our own people, as well as to promote our humanitarian commitments to the undernourished throughout the world, we need more comprehensive and focussed attention on nutrition at all levels, to include training, basic research, research in field methodologies, on the effects of nutrition on human development and disease, and on the evaluation of programs.

One last comment: it seems reasonably clear that much of our past effort has not been focussed on what are the key nutritional issues for American children over the next decades: the precursors of adult disease and disability from malnutrition (and other experience) in early life. The contribution of nutrition in childhood to the etiology of later disease, particularly cardiovascular diseases such as high blood pressure and atherosclerosis, is likely to be of much greater importance than relatively minor variations in linear growth. So far, the food programs supported by the Department of Agriculture, and the evaluation of these programs, have paid scant attention to these very important issues.

STATEMENT OF JOHN W. BODE, DEPUTY ASSISTANT SECRETARY, FOOD AND CONSUMER SERVICES, U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman, and members of the subcommittee, we appreciate the invitation to appear before you today to discuss the nutritional status of low-income Americans and this Administration's legislative proposals for Fiscal Year 1984. Accompanying me is Robert Leard, Administrator of the Food and Nutrition Service, and Isabel Wolf, Acting Administrator of the Human Nutrition Information Service.

At the outset, I want to assure this subcommittee that the Administration remains concerned about the nutritional well-being of low-income Americans and is committed to providing food assistance to those in need. The network of ten major feeding programs administered by the Food and Nutrition Service has met the challenges of difficult times. At the same time, we believe that further refinements will improve program performance and increase the return on the taxpayer's investment.

This hearing was scheduled to examine the nutritional status of low-income Americans. First, I would like to summarize the information we have on this matter; then I will describe our proposals to improve the federal nutrition assistance programs.

NUTRITIONAL STATUS OF LOW-INCOME HOUSEHOLDS

The most recent information available is from the 1977-78 Nationwide Food Consumption Survey (NFCS) and the supplemental Surveys of Food Consumption in Low-Income Households conducted in 1977-78 and in 1979-80.

The Surveys of Food Consumption in Low-Income Households have provided us with a rich source of information about the diets of low-income households and some of the factors affecting them.

Such information is especially helpful to the Department in targeting and appraising food assistance and education efforts.

About 40 percent of all households in the two surveys of low-income groups used food that met the RDA's for all nutrients. Within this low-income group, food stamp program households met approximately 47 percent of the RDA's for all nutrients and non-food stamp households met approximately 36 percent of the RDA's. These figures compared with a nationwide sample of households at all income levels in the 1977-1978 survey where 50 percent of all households met the RDA for all nutrients.

In addition, USDA's surveys show that households with low food costs and low incomes are relatively good shoppers. For every dollar worth of food, households with low food costs obtained up to 25 percent more nutrients than two higher income household groups.

At the present time, the Department has underway two methodological studies which are designed to improve our data collection capabilities both in terms of data validity and costs. The first study, now in the field, is testing nine alternative methods of collecting longitudinal individual intake data (up to 12 days' dietary intake over a 1-year period). The second study will test three of the "best" methods from the previously mentioned study on low-income population segments.

I would like to reiterate that these studies are methodological studies, and will not provide data that can be interpreted to evaluate the dietary status of the population.

As a part of its commitment to the National Nutrition Monitoring System, the Department plans to initiate a continuous, longitudinal individual food intake survey in 1985. A monitoring group, plus children in households containing an individual in the monitoring group, will be included initially. Eventually, other sex-age groups or high-risk groups will be included. The household phase of

the NFCS is scheduled to be initiated in 1987 in the same manner as the 1977-78 NFCS.

CONTINUING SUPPORT FOR THE NUTRITIONALLY NEEDY

Since this Administration came into office, some significant changes have been made in nutrition assistance programs. They have been judicious changes, calculated to reduce the rate of program growth while continuing to protect those in need. Though these changes have had some budgetary impact, the Federal government is spending more than ever before on nutrition assistance. Currently, we are spending $17.5 billion in direct assistance, and we are also providing $1.1 billion in our special dairy distribution and bonus commodity donations, for a total of $18.6 billion. The Federal government currently subsidizes, in whole or in part, approximately 95 million meals per day. The WIC program has grown tremendously; participation for the first quarter of this year is 20 percent greater than in the comparable period last year. Since President Reagan took office, the Food Stamp Program's average per person benefit amount and maximum allotment amount have grown faster than food price inflation.

Almost one in ten Americans receive Food Stamp Program benefits. A greater percentage of School Lunch Program dollars are dedicated to providing meals for children from low-income families. Indeed, we have increased the subsidy

for meals served to children from low-income families. Additionally, we have exercised discretionary authority to distribute cheese, butter, and non-fat dry milk, rice, and cornmeal to low-income households.

Furthermore, we have been able to maintain support for those in need during adverse economic times, without adding new, permanent programs. The Food Stamp Program has grown in response to unemployment levels as one of several programs providing benefits to almost everyone with income below 130 percent of the poverty guideline.

Also, this Administration has taken strong and effective steps to curb fraud, waste, and abuse in food assistance programs. We believe this is essential not only for reasons of economy but also because the legitimacy of food assistance programs in the eyes of the public is threatened when they are known to be abused or wasteful. We remain concerned about the sort of program complexity which leads to error and waste, and our fiscal year 1984 Legislative Proposals address this problem.

ADMINISTRATION'S FISCAL YEAR 1984 PROPOSALS

Now I would like to briefly discuss the Administration's Fiscal Year 1984 proposals.

The Administration's proposals for modifying food assistance programs are consistent with the government-wide plan to delay cost-of-living adjustments by six months. This does not constitute a reduction in benefits but is a delay in implementing scheduled changes. This delay will not have a significant effect because of the substantial reduction in the rate of inflation. We project that the currently scheduled October adjustment would raise the four-person monthly allotment by only one dollar.

FOOD STAMPS

As I indicated previously, we are concerned about complications in the Administration of the Food Stamp Program which have contributed to increased error. Our Food Stamp quality control system indicates that approximately 10% of the program benefits are overpaid or issued to ineligible participants. That means we are wasting over $1 billion a year in the Food Stamp Program.

Therefore, the goals of our 1984 food stamp proposal are: (1) to streamline and simplify the program so that errors at certification can be reduced; (2) to revise the error sanction system so that we subsidize only 3% of State errors; (3) to improve the work policy in order to encourage employment.

Our 1984 proposed budget for the Food Stamp Program would

spend $10.9 billion. This is $766 million less than what the program would cost in 1984 if there were no changes. Over half of these savings (55%) are due to the proposed revision of State agency liability, and 25% from simplified administration. Five percent of the savings will come from proposed changes in program work experience requirements, and 15 percent from reducing benefits or curbing the rate of program growth.

I think it's important to note that 80 percent of the savings will come about by reducing misexpenditures rather than recipients' benefits. This proposed budget was designed to minimize the reduction of any household's entitled benefits.

We propose to revise and simplify the program's system of deductions. First, we would establish a standard/shelter deduction of $140, adjusted April 1 of each year. It would replace the existing standard deduction and the itemized excess shelter expense deduction and would save $125 million in erroneous payments. Second, we would replace the itemized earned income deduction with a standard earned income deduction set at $75 monthly per full-time worker. Third, we would retain the dependent care deduction so that households who need to pay for child care in order to work could claim up to $115 a month as a deduction.

These proposals will help the Food Stamp eligibility worker

by eliminating one of five possible deductions and six of ten computations. As a result, both errors and administrative burden would be reduced.

These proposals would achieve an estimated $326 million in savings in Fiscal Year 1984. Since about one-third of these savings come from simplification and error reduction, the impacts on households are not great - an average loss in benefits of 7¢ a day. Among households headed by women who have children, 13 percent will have no change while 46 percent will receive more benefits; the average change for these households will be a loss of only 3¢ a day.

We also propose to make households where all members receive AFDC payments categorically eligible to receive food stamp benefits. This would simultaneously reduce error and free up staff time to be devoted to more error-prone cases. For AFDC-only households, we would replace individual determinations of benefit levels with a simplified benefit determination based on average food stamp benefits for AFDC households in each State. The benefits of average households would be unaffected by this proposal, which would save $70 million in Fiscal Year 1984 through simplification and error reduction. Twenty-five percent of the food stamp caseload is AFDC-only households.

Our proposal to consider persons who live together as one household for food stamp purposes would save an estimated

$70 million in Fiscal Year 1984. Establishing and verifying who lives together is easier than determining who purchases and prepares food together. This proposal would eliminate eight of a possible ten decisions for the Food Stamp case worker. Furthermore, it will eliminate certain cases of abuse. Unrelated recipients can manipulate current rules and gain higher benefits by filing as separate households. Requiring all individuals living together to file as a single unit would end this abuse.

Fiscal Year 1984 savings would be increased by $90 million by our proposal to require certain able-bodied persons to work in community work experience programs (CWEP). This proposal, coupled with the job search requirement, would encourage the able bodied to find work in the private sector. If no jobs are available, CWEP participants would perform useful work which meets community needs. We believe that a community work experience program provides benefit recipients with valuable job skills and work experience; it encourages the transition to economic independence; it fosters an equitable system by requiring work of those who can work; and it provides a return to the community for benefits received.

Our proposed changes for Fiscal Year 1984 will increase the States' opportunities to reduce errors. An additional incentive is needed to reduce state errors from their unacceptably high levels. Since food stamp funds are exclusively Federal dollars, States lack a strong incentive

to improve administration. Error rates are lower in both AFDC and Medicaid, where states share in program costs.

We propose to establish State liability for the value of eligibility or overissuance errors above a 3 percent tolerance level. This will save an estimated $423 million in Fiscal Year 1984.

The Administration's proposal to revise the error sanction system provides a stronger incentive for error reduction. It places fiscal responsibility for incorrect eligibility and benefit determinations with those in a position to take corrective action. It also conforms the error tolerance level with that of the AFDC and Medicaid programs.

In summary, our 1984 food stamp proposals will simplify administration of the program, reduce error, provide incentives to obtain employment, and curb the rate of benefit growth.

Now, I would like to discuss the Child Nutrition program proposals.

For the Child Nutrition Programs, the legislative proposal for Fiscal Year 1984 was developed with two goals in view. These goals are to simplify and streamline program

administration and reduce errors and deter fraud.

The General Nutrition Assistance Grant

The proposed General Nutrition Assistance Grant of $535 million is designed to simplify program administration for State agencies, by consolidating funds expended in the Summer Food Service, School Breakfast, and Child Care Food Programs. The result will be enhanced administrative efficiencies through the reduction of program complexity and program tailoring by the States to fit their needs. This consolidation of programs will reduce Federal costs by $217 million in Fiscal Year 1984.

The Programs included in the proposed General Nutrition Assistance Grant each present problems that are of concern. The nutritional quality of the breakfast meal is not superior to other sources. There is no assurance that Summer Food Service Program benefits are provided to low-income children. Up to seventy-five percent of meals served in Family Day Care Homes in the Child Care Food Program are provided to non-poor children.

We considered corrective incremental changes to these programs which would have achieved savings comparable to our proposals. However, we thought it made more sense to allow States the flexibility to tailor programs to the needs of their localities through the General Nutrition Assistance

Grant.

ELIGIBILITY VERIFICATION

In an effort to reduce error and deter fraud, the Department is proposing that income eligibility determination functions for school meals be performed by food stamp offices or, if equally capable, schools. In such cases, food stamp offices would receive reimbursement for their services from enhanced State Administrative Expenses. I am concerned that our proposal is being widely misinterpreted. We are not proposing that children or their parents be sent to food stamp offices to be certified for free or reduced-price meals. We intend for State and local school officials to take advantage of eligibility verification expertise that exists in the Food Stamp offices. Our proposal will allow States to design eligibility verification methods that best meet their needs using the resources of both the education and welfare systems.

Create an Independent Reduced-Price Subsidy Level

Under current law the subsidy for reduced-price meals is tied to the free meal rate. Consequently, it is over-compensated when an adjustment for inflation is made, and the reduced-price meal rate increases faster than inflation. We propose modification of this provision, so that the reduced-price subsidy would increase at the same rate as the Consumer Price Index "food away from home"

component. This proposal would provide increased equity in subsidies.

Maintain WIC/CSFP Funding

Under the Administration's proposals the WIC and CSFP funding level would be maintained from Fiscal Year 1983 to Fiscal Year 1984. WIC program participation has grown substantially during this Administration, and high priority WIC cases will continue to receive benefits.

The Fiscal Year 1984 budget proposals represent the continuation of a new system designed to re-establish the balance of decisionmaking among the Federal, State and local levels of government. As stated before, the goals of the budget are to simplify program administration by consolidating programs and providing States the flexibility to tailor the specific programs offered to the needs of their localities, to reduce error and deter fraud by transferring income verification responsibilities from school administrators to trained and experienced food stamp staffs, and to create a separate subsidy level for reduced-price meals. We believe that this legislative package is a positive effort to improve program operations at all levels of government.

Summary

In summary, I think you can see the common sense in this budget. It responds to the compelling need for the reduction of unnecessary expenditures in order to limit a serious deficit. Our budget proposals do this by streamlining program operation while reducing errors and abuses. Of course, essential program benefits are maintained. Taken together, these proposals are a package that address human, as well as economic, needs.

I will be glad to answer any questions you may have.

STATEMENT OF LARRY BROWN, PH. D., MEMBER OF THE FACULTY,

HARVARD SCHOOL OF PUBLIC HEALTH, BOSTON, MASS.

Chairman Dole, Members of the Subcommittee:

I appreciate your invitation to testify on the nutritional status of low-income Americans in the 1980's.

As some of you know, I am on the Faculty of the Harvard School of Public Health, and direct the School's Community Health Improvement Program. We work almost exclusively with low-income communities in Greater Boston, and do so cooperatively with Boston hospitals and neighborhood health centers. By placing our students in such organizations we have developed a deeper understanding of the health and nutritional needs in this population.

Our research interest in this area was generated by federal policy and program changes brought about by the Omnibus Budget and Reconciliation Act (OBRA-FY'82). Following this Act, more than 40% of Massachusetts school children were dropped from the school breakfast and lunch programs. Nearly 20% of families receiving food stamps, and over 20% of children receiving AFDC, were eliminated from participation.[1] Our WIC program (for women and infant children) remained relatively stable, still serving under 19% of the eligible population.

Altogether, 364,000 people in our state, mainly children, lost the ability to participate in nutrition programs. These are not the most impoverished Americans -- the so-called old poor. Instead, they are the "new poor", people who have been living on the margin and who then lost the support of these programs. We were interested to learn what happened to them as a result of these changes. We focused our attention on health and hunger.

If our research is unique, it is because this is perhaps the first time since the Great Depression that the number of families being fed by soup kitchens in a major urban area has been so thoroughly documented. Our data system produces two outcomes on a monthly basis: the number and location of emergency food facilities, and the number of families or individuals who are fed.

Emergency Food Programs and Number of People Served[2]

The emergency food network[3] in Boston is comprised largely of soup kitchens[4] (which provide meals) and food pantries[5] (which provide groceries).

Many of them are serviced by the Boston Food Bank, one of approximately forty banks developed around the nation to respond to the increased demand for food. The Boston Food Bank last year distributed 680,000 pounds of food, and projects distribution of 1,500,000 pounds this year.

Footnotes at end of statement.

In our research, we monitor 172 food pantries and 35 soup kitchens in and around Boston. In addition, we follow a selected sample of pantries to determine monthly fluctuations. The latest month for which we have data is January, 1983.

I am anxious to share several of our research findings with you to this point in time:

FINDING 1: News accounts estimated 3,000 - 4,000 people in Boston being fed by emergency food programs. We found that a minimum of 20,126 men, women and children were fed in soup kitchens and by food pantries this past January alone.[6]

FINDING 2: During this one-month period, individuals and families consumed nearly 200,000 meals provided by kitchens and pantries.

FINDING 3: If current levels hold steady, nearly 2,500,000 meals will be provided to hungry people in twelve months.

FINDING 4: Current levels are going up. The demand for emergency food reportedly has doubled since a year ago. Our data reveals that the number of people fed in December rose 20% over the previous month, and increased another 14% in January. For those two months, in other words, the number of people being fed increased 34%.

We are learning other things about the phenomenon of hunger and the efforts to cope with it. I find this information rich in policy and programmatic implications:

FINDING 5: Of the over-200 emergency food centers, the majority started after OBRA. Our data is not sufficient to draw a cause-and-effect relationship between OBRA cutbacks and the rise of emergency food programs. But their temporal relationship clearly places the burden on those who wish to argue that they are unrelated.

FINDING 6: Requests for help at the emergency food centers increases dramatically toward the end of each month, attributable to food stamp allotments inadequate to feed children for an entire month.

FINDING 7: The emergency food network is highly admirable, but temporary and patchwork at best.

- o Soup kitchens are unable to keep up with need as many people go unserved. Food pantries often are open infrequently, and serve but one bag of groceries to a family in a month.
- o Food served often is nutritionally inadequate. The Boston Food Bank points out, for example, that marshmallow fluff and jelly may fill a child's stomach but not nourish her.
- o The emergency food network often is a maze of dead-ends to parents who must carry children

around town in search of twenty-one meals each week.

FINDING 8: Perhaps most significantly, churches and social service agencies report that most people who are hungry do not enter the emergency food network. Either due to pride, lack of knowledge, or having been turned away, they suffer their lot in the privacy of their own homes. Extra water is added to the baby's bottle of milk and more beans to the pot. The quantity goes up; nutritional value does not.

We do not really know how many people fall into this latter category. No one does. What we do know is that in but one year, some two and a half million meals will be provided to hungry people in Boston -- representing at least two and a half million times that Americans in one urban area alone went to their cupboards to find them bare.

Health Effects of Hunger

Our knowledge of the actual impact of hunger on health is presently less clear than the fact of its existence. Unfortunately, clinical evidence takes a long time to reveal itself. But small clinical studies, along with reports from the medical community, provide reason to be concerned. The number of pregnant women coming to hospitals for delivery with no medical care during pregnancy reportedly is increasing. And children often are underweight at birth, and more infants and children reportedly are failing to thrive.

A medical research team at Boston City Hospital, for example, took weight and height measurements for all 400 children in the pediatric walk-in clinic. Outcomes for each child were plotted on growth charts developed by the National Center for Health Statistics (weight for age, weight for height). The physicians particularly were interested in determining the evidence of inadequate nutrition in children age five and under. These five years represent the postnatal period of most rapid brain growth -- a time when the brain is uniquely susceptible to irreversible damage from nutritional deprivation.

They found substantial growth failure among this vulnerable population. We would normally expect to find five percent of all children in the lowest 5th percentile of growth. They found 14.4% of their patients there -- nearly three times the expected rate.[7]

Another ten percent of the children were at the other end of the continuum -- above the 95th percentile. The obesity of many in this latter category reflects improper nutrition often associated with poverty: high carbohydrate, low-protein diets which fill the stomach without properly nourishing the body. Obese children are not at such high risk as those who are malnourished, but their health status is jeopardized just the same.

Certainly the children suffering from growth failure do not have kwashiorkor, the nutritional disease often associated with Third World countries where we see children with distended bellies. Rather, they suffer from what the World Health Organization terms "silent undernutrition," a condition less apparent on casual observation.

The thirty-pound child who is ten pounds underweight, or the child whose growth has stopped, are two possible victims of this condition in which children run a very high risk of long-term impairment at a time of rapid brain growth.

A child's brain is much like a construction site. You have materials and a work crew. But the crew will be there only for a fixed time. If the bricks are delivered after the crew is gone, they won't become part of the building. Similarly, the brain of a young child has developmental or biosynthetic abilities it will never have again. If adequate nutrition is unavailable during this time, the likelihood of long-term impairment is significantly increased.

In other words, a child's brain cannot wait for economic upswings.

The Boston City Hospital study does not permit generalization to the larger population. But it is troubling data. Growth failure or malnutrition was found among low-income children at two or three times the expected rates. And it wasn't hard to find it. This is worrisome.

What worries me most is that the early clinical warnings of damage to health are showing up under current spending levels. We are identifying serious consequences at present rates of spending. If we increase nutritional programs, we probably can reverse this trend within several years. If not, the probability is that next year I will be able to present to you further evidence of ill-health which inevitably occurs when nutrition is not adequate.

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1 School lunch participation in Massachusetts dropped from 400,000 to 230,000 children between October, 1980 and May, 1982. Participation in the school breakfast program dropped from 53,000 to 31,000 between March, 1981 and December, 1982.

The number of food stamp recipients dropped from 487,000 to 395,000 in the nine months between January, 1982 and September, 1982. AFDC dropped from 350,000 to 270,000 between March, 1981 and June, 1982.

2 Our research has been carried out in cooperation with the Boston Food Bank and the Project Bread Hunger Hotline. The Boston Food Bank is a non-profit clearinghouse for soliciting, storing, and redistributing food to organizations feeding hungry people. The Project Bread Hunger Hotline, set up by a grant from the Permanent Charity Fund of Boston, is an umbrella entity designed to coordinate the activities of, and provide technical assistance to, local food pantries, soup kitchens, and other efforts designed to feed the hungry.

3 "Emergency food" signifies food or financial assistance for families and individuals without food or the funds to purchase it. The term, once used in reference to acute need due to fire, other natural disasters or short-term economic problems, now is used to represent more chronic needs due to unemployment, inadequate income and changes in federal nutrition assistance programs. Emergency food usually is distributed through the voluntary efforts of churches and social services.

[4] Soup kitchens are places which serve meals on a regular (daily or weekly) basis. Often in churches, temporary shelters, or community centers, they frequently are staffed by volunteers who prepare and serve meals. They serve various populations -- young and old adults, runaway children, families -- seeking respite from poverty, isolation, and lack of resources. Meals usually consist of a main dish (often soup), salad, dessert, and coffee. Sometimes they consist of sandwiches and coffee given away at the back door of a rectory.

[5] Food pantries are predominantly voluntary efforts by churches and social service agencies to provide a bag of groceries to families in need. Variable in nature, pantries typically provide a three-day supply of non-perishable groceries such as crackers, cereal, powdered milk, peanut butter, rice and canned soup. Many pantries obtain their food from the Boston Food Bank, churches and community drives. The food supply is unstable and variable insofar as nutritional quality. Many pantries are open only a few hours a day or a few days a week because they run out of supplies easily.

[6] Food pantries served 13,785 people, including family members, and soup kitchens served 6,341.

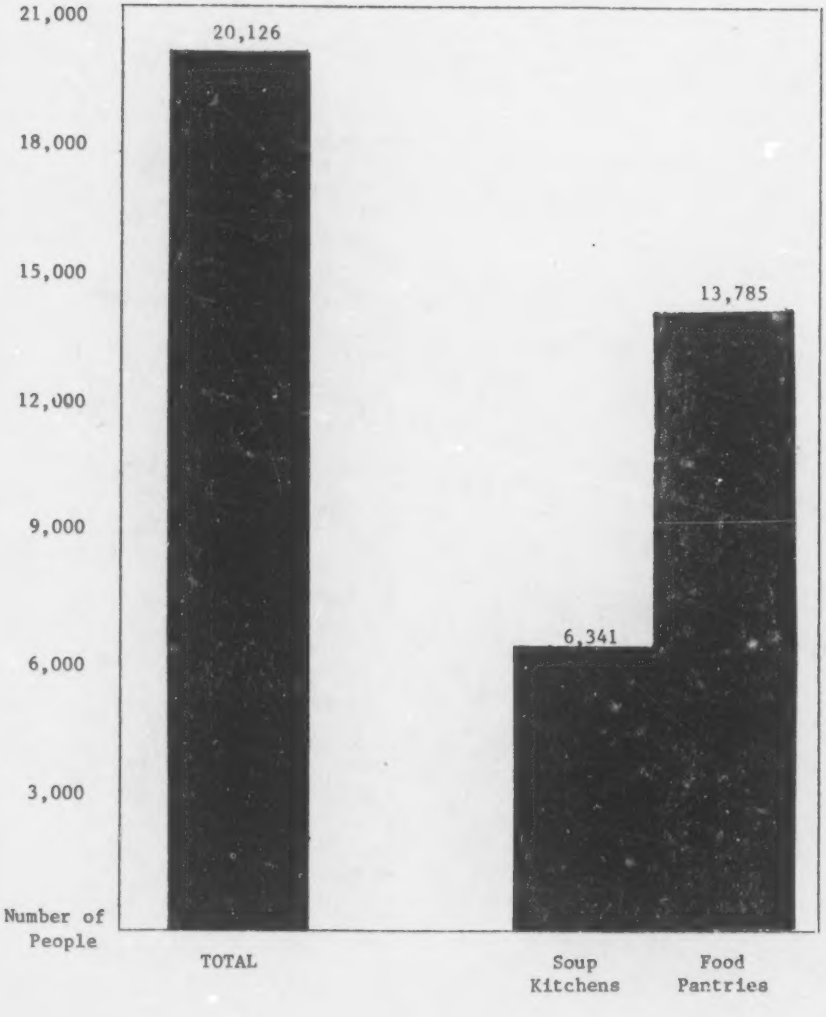
[7] Principal investigators were Deborah Frank, M.D. and Howard Spivak, M.D. Their research team took weight and height measurements on all children aged 17 and under who came to the pediatric walk-in clinic at Boston City Hospital during the one-week period between February 14-20, 1983. This sample was analyzed according to age groupings. The group of children aged five and under, reported herein, totaled 207.

Project outcomes are being written up at present. Drs. Frank and Spivak report that their data, if anything, underreports growth failure in the children for three reasons: (1) some of the children were weighed with their clothes on, an extra pound or two being a relatively high proportion of a small child's weight, (2) only the values (outcomes) at the far extremes for individual childrer were re-checked; thus, children who are substantially underweight but whose weight may have been recorded as "normal" would not show up, and (3) the study was not designed to pick up deceleration of growth from undernutrition -- children not in the 5th percentile but who, nonetheless, have shown no weight increase in fifty-six days (for children under five months) and in ninety days (for children five months and older.)

PEOPLE FED BY SOUP KITCHENS AND

FOOD PANTRIES: JANUARY 1983

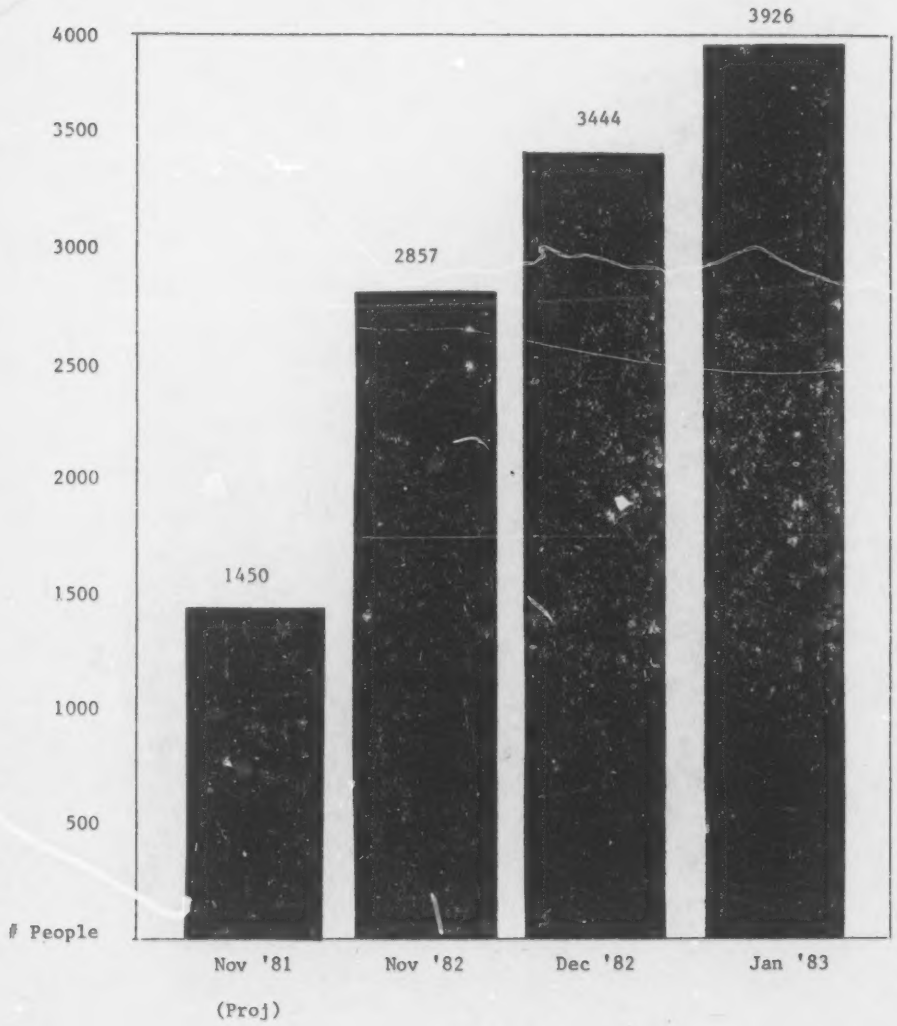
(Boston)



HSPH/CHIP 1/83

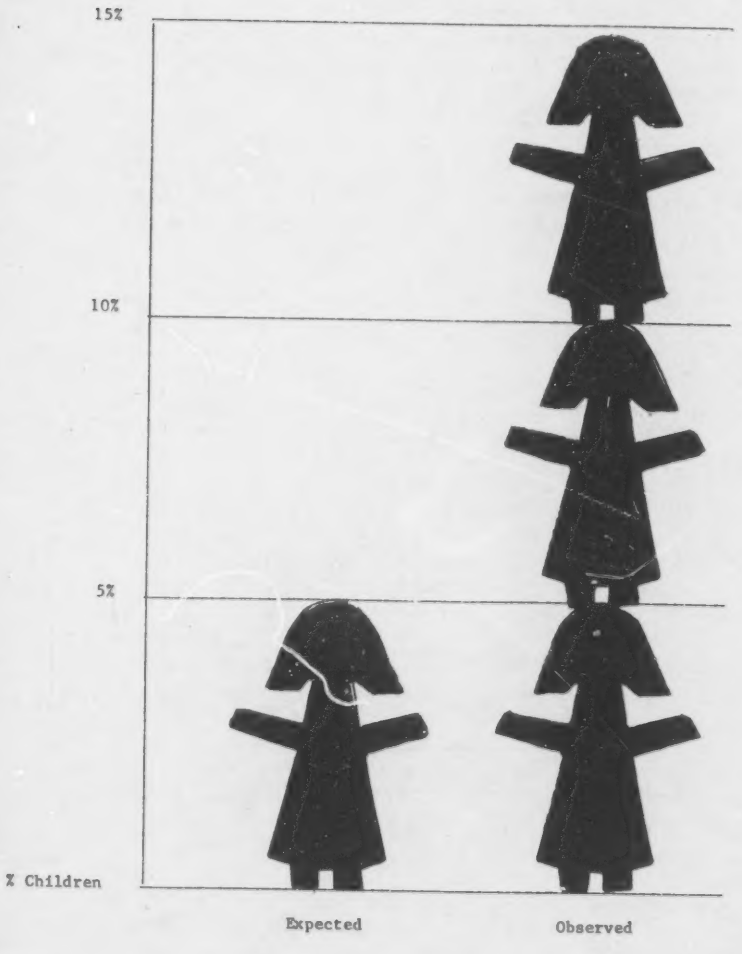
PEOPLE FED THROUGH FOOD PANTRIES

Monthly Increases (N=15)



GROWTH FAILURE

Children in Lowest Growth Percentile (5th)



BCH 2/83

STATEMENT OF DR. C.E. BUTTERWORTH, JR., PROFESSOR AND CHAIRMAN, DEPARTMENT OF NUTRITION SCIENCES; UNIVERSITY OF ALABAMA IN BIRMINGHAM; UNIVERSITY STATION; BIRMINGHAM, ALABAMA 35294.

Mr. Chairman, Committee Members and staff, it is indeed a pleasure to have this opportunity to appear before you and to provide whatever guidance I can for your deliberations. It is particularly gratifying to note that the medical profession, academic institutions, and nutrition scientists from various disciplines, are all being represented.

I don't need to tell you that nutrition is an exceedingly complex subject that embraces many aspects of human endeavor ranging from agricultural practices on the farm, through food processing and distribution, and into the physiological effects of food on the consumer. However, I emphasize these complexities because they help to explain the difficulty in providing you with the sorts of information you need to evaluate food assistance programs for low-income Americans, and for women, infants, and children. In February 1977 I testified before the Committee on Agriculture, Nutrition, and Forestry at a hearing held by Senator Jim Allen in Montgomery, Alabama. At that time I stated "the weakest link in the chain that brings the benefits of agricultural productivity to the people is the health care delivery system for humans." I also noted that the problem seems to lie in the "lack of information concerning direct relationships of food to health at the doctor-patient interface". I would like to return to this topic later, but at this point let me say that this is a major reason that our statistics, and solid scientific data, are inadequate. For example, malnutrition is not a diagnosis that is likely to appear on a hospital discharge record, insurance form, or death certificate. Although disordered nutrition may be a contributory factor in each of the ten leading causes of death (except suicide!) malnutrition seldom appears on death certificates. Until it does you and I will have great difficulty in measuring accurately the impact of feeding programs on the health of recipient groups. I would now like to limit my remaining remarks to the following (a) how nutritional status is evaluated in humans; (b) what information is currently available; (c) needs; and (d) recommendations for future efforts to ensure the efficient use of limited food and financial resources.

A. Methods of Nutritional Status Assessment

First, all methods of nutrition evaluation depend on some definition of health. One of the first approaches is to determine the amount of nutrients in diets customarily consumed by healthy persons. Another approach is to determine the amount of a nutrient necessary to prevent or cure a disease. For this reason the physician plays a role that is absolutely vital and essential to the system. It may be seen that evaluation of an individual or a population sample, may involve all of the basic medical skills of diagnosis (e.g. medical history, physical examination, and laboratory measurements) and a final judgement regarding health. Some of the tools commonly employed for nutritional evaluation are: estimates of dietary intake (e.g. 3-day recall), anthropometric measurements, (e.g. height/weight, skin-fold thickness) and physical examination for common manifestations of malnutrition, pallor, anemia, lesions of skin, mucous membranes and teeth; and skeletal anomalies. Laboratory testing may range from simple tests such as blood counts and urinalyses to ultra-sensitive analyses involving "space-age" technology, radio-isotopes, stable isotopes, computers, scanners, and nuclear magnetic resonance. It seems

paradoxical to me that so few of these techniques are actually employed for evaluating the nutritional status of people when they get sick!

B. Results of Nutrition Status Assessment

Little information is available about the nutritional effects of the food stamp program. This is due in part to the absence of baseline data, the lack of an integrated evaluation plan in the program, and (presumably) an intent to provide a basic wholesome diet to recipients without any social stigma or nutritional goal. However the "WIC" program was intended to prevent malnutrition in young children and its impact is being evaluated on a five-year cycle. Data are not yet available regarding any nutritional benefit from this program.

Alabama currently receives approximately $29 million dollars monthly for food coupon issuance. Alabama also receives monthly approximately $1.3 million for food purchases under the "WIC" program and some $4.5 million for the school lunch program. I feel confident that these programs have contributed enormously to the health and welfare of the population of our state, particularly since the unemployment rate (currently 16.1%) has been among the top three or four in the nation for the past year. There can be no question that times are hard as judged by long lines at the unemployment centers, at food distribution centers, and at church "soup kitchens". It is more difficult to put this in precise scientific terms and statistics. Cases of overt starvation, and frank vitamin deficiency due to poverty, however, are rare.

On the other hand it is not uncommon to encounter malnutrition in one of its many forms among the elderly, and particularly among adult alcoholics. It is often an underlying factor leading to hospitalization for other causes. It may be the result of chronic disease (such as arthritis, senility, cancer), or the loss of a loved one - or ignorance - or simply the lack of a good set of false teeth. Poverty is only one of the causes.

One very disturbing trend however can be seen in recent newspaper reports which indicate that the infant mortality rate in Alabama is increasing rapidly. Two UAB faculty members, Dr. Robert Goldenberg and Dr. Christiane Hale are in the process of studying infant mortality rates under contract with the state health department. They expect that the total death rate for 1982 will be at least 900 babies, and possibly as many as 1,000, compared with 800 infant deaths in 1981. Malnutrition is recognized as one of the most important factors contributing to the infant mortality rate, along with such other factors as inadequate prenatal care during pregnancy, and delays in seeking medical advice when needed.

C. Needs

Why don't we know more about the nutrition status of our US citizens, low-income and otherwise? The answer, it seems to me is quite simply that we have been looking in the wrong place. The emphasis has been misplaced. Both the "Ten-State Survey" and the "HANES-I" survey were based on ambulatory populations in reasonably good health. In the "HANES-I" survey, for example, there were 10,126 persons aged 1 through 74 who were willing and able to come to a center for evaluation. This represented only 72.8% of the desired population, and was recognized as failing to meet requirements of probability design.

It may be presumed that the ones willing to come for interviews and examination were responsible and conscientious community members, and therefore less likely to neglect their nutritional health. What about the ones who were sick? What about the ones who were in bed, or in the hospital or nursing home, or otherwise irresponsible?

The HANES-I report states that it "was predicated on the assumption that the evidence of malnutrition encountered would be mainly early subclinical malnutrition with or without any physical signs". In my opinion such surveys would do well in the future to include invalids, patients in nursing homes, and patients entering the hospital as a result of acute illness or injury. Data on such individuals might well provide important links between nutritional status and disease. If evaluation of nutritional status were to be made a part of every hospital admission then valuable information could be gleaned regarding the nutritional status of the community from which the individual came. Indeed I would like to see nutrition information made a required entry on requests for third party hospital insurance payments, and on death certificates. With total personal health care in hospitals costing in the neighborhood of $118 billion dollars annually it is not unreasonable to evaluate the role of malnutrition as a factor contributing to the hospital admission -- a factor which might be remedied by improved diet and nutrition support programs.

In my opinion food is medicine. It is capable of curing disease. It is capable of preventing illness. It can hasten recovery from injury and elective surgical procedures. It seems to me that if Congress is going to appropriate billions of dollars to provide food for low-income citizens and other target groups, then the effectiveness of the program should be monitored, just as one would monitor the effectiveness of a satellite or highway construction project.

One way to do this would be to monitor the health statistics, medical insurance claims, and mortality data of food-aid recipients, in comparison with control groups. This is the "bottom line". Until this is done Congress is not likely to know if the programs are working.

I think we must be careful in the 1980's not to look for malnutrition in the same forms that existed in the '20's and '30's. People have changed. Diets have changed. Seasonal fluctuations in the supply of fresh produce are much less apparent in today's supermarket. Food fortification policies help ensure that certain important vitamins and minerals reach a large segment of the target population. And, according to some surveys, 40% of the population takes a multiple vitamin supplement regularly. Scurvy and pellagra have virtually disappeared from "free-living" Americans although they may be seen in people with eating disorders, alcoholism, or other diseases.

In today's world we need to be thinking in terms of nutrition's role in the prevention of birth defects, acute viral illnesses, heart disease and cancer and other disorders that are not conventionally associated with nutritional status. For example a high intake of beta-carotene in the diet is associated with a lower risk of several forms of cancer. And there is evidence that women with a low intake of vitamin C and folic acid may be at increased risk of developing cancer of the cervix. Around the world populations with high intakes of saturated fat are more

prone to develop cancer of the colon, cancer of the breast, and coronary disease than populations with low fat intake. Even excessive voluntary restriction of food intake, as in anorexia nervosa and bulimia, is becoming a matter of increasing concern in major U.S. medical centers.

Thus we must begin to think of nutrition as it relates to the entire spectrum of human disease and not just to the stereotyped, old-fashioned "deficiency syndromes".

I am pleased to report that later this year our University will occupy and dedicate the new Susan Mott Webb Memorial Nutrition Sciences Building. This 6-story structure was made possible by a major grant from the Susan Mott Webb Charitable Trust, with generous supplemental contributions from private individuals, foundations, and industrial corporations. The objective of the department is to develop all aspects of nutrition education and nutrition research - and ultimately to use the manpower and knowledge generated for the good of all mankind.

So much for an evaluation of current information and needs.

D. Recommendations

I would recommend for your consideration a requirement that every state receiving Federal funds for food assistance for target populations must monitor the health status of the recipients. Malnutrition should be a "reportable disease" like tuberculosis or measles. However, since malnutrition tends to be an underlying factor associated with other diagnoses, some provision also needs to be made to identify nutrition problems as "contributory" or "risk" factors in other primary disease states. To that end I would like to make this specific recommendation:

I propose that the following information be required on all third-party insurance claims for hospital expenses, and on death certificates:

1. Was this hospitalization (or death) related to:

	Yes	No
psychiatric illness?	___	___
pregnancy?	___	___
alcoholism?	___	___
malnutrition?	___	___

2. If malnutrition was a factor, was it due to:

	Yes	No
undernutrition?	___	___
overnutrition?	___	___
low income status?	___	___
poor eating habits?	___	___
the underlying disease or injury?	___	___

Even this limited check list would mark a significant beginning and provide information of immeasurable value that is currently not available. Of course other programs such as those of the Agricultural Research Service, the Clinical Nutrition Research Unit program of NIH and other Government-sponsored programs designed to promote health through better nutrition must continue. Finally, I believe the present food-assistance programs should continue at least at present levels of funding, but only if their impact on the health of recipients can be monitored.

STATEMENT OF MARGARET L. BOGLE, M.S., R.D., DIRECTOR, NUTRITIONAL SERVICES, ARKANSAS CHILDREN'S SERVICES; INSTRUCTOR, DEPARTMENT OF PEDIATRICS, UNIVERSITY OF ARKANSAS COLLEGE OF MEDICINE, AND PEDIATRIC CONSULTANT, ARKANSAS DEPARTMENT OF HEALTH

The impact of unemployment, reduced funding and participation in nutrition programs and increased food costs on the nutritional status of Americans in the 1980's is difficult to pinpoint at this time. No national or regional studies (such as Health and Nutrition Examination Survey, the Ten State Nutrition Survey of late sixties or the Preschool Nutrition Survey of the seventies) have been initiated to address this concept. In addition, except for those individuals at nutritional risk -- infants, pregnant women and the aged -- the effects of inadequate food intake are subtle and surface only after long periods of time. For those at risk, the signs of malnutrition may develop more rapidly, are frequently associated with infection and disease so that it is difficult to establish the specific results of inadequate nutrition. The negative relationship of poor nutritional status to disease states, complications of surgery and infections has been well documented in hospitalized patients. However, the positive relationship of good nutritional status to "health" is more nebulous and difficult to prove.

The surveys of nutritional status of the late sixties and early seventies did document the extent of malnutrition and nutrient deficiencies existent in specific population groups at that time. The improvements in nutritional status were linked in part to the initiation of food and nutrition programs such as WIC, School Lunch and Breakfast, and Food Stamps.

The WIC program included a monitoring and evaluation system that was an integral part from the beginning. In addition, participants had to be part of a health delivery system and judged to be at nutritional risk. This monitoring and data collection has demonstrated the benefits of WIC in preventing health problems and improving the health status of participants. In addition, data showed that WIC has effectively reduced the incidence of low birth weight infants and is desirable from a cost-benefit perspective. Although the documentation of benefits of the National School Lunch and

Breakfast were not mandated originally in the programs, the results of a recent study conducted by U.S.D.A. (The National Evaluation of the School Nutrition Programs) should be of benefit and interest.

These examples demonstrate the importance of including monetary and technical guidance for monitoring and evaluation of food and nutrition programs to determine their real benefits to participants. Monitoring of nutritional status and resultant health benefits could be significant.

The evaluation of nutritional status of individuals and groups is a complex process including: (a) physical examination and medical history, (b) anthropometric measurements, (c) biochemical data, and (d) dietary evaluations. The process involves the cooperation of a variety of scientists-physicians, nurses, laboratory technologists, biochemists and dietitians -- not only in the accumulation of data but also in the interpretation of that data. Problems associated with the evaluation of nutritional status include: inability to show specific cause and effect relationships; standardization of tests; reliability of data; costs associated with large scale studies; difficulty in selecting appropriate samples; and inability to pinpoint marginal deficiencies.

Using existing technology, the effects of poor or inadequate food intake do not make significant changes immediately in nutritional status. Changes must be monitored over time to show true cause and effect relationships. An exception would be infants less than six months of age who are growing so rapidly that small decreases in caloric/nutrient intake will manifest in weight loss and cessation of growth in a period of days. The effects of long term hunger will eventually alter nutritional status. More concern should be directed toward the intermittent periods of inadequacy of nutrient intake such as the end of each month when families run out of Food Stamps, WIC or money to purchase food. No data are available to document the effects of this which may be especially critically to the growing infant, child or pregnant woman. In addition, we do not have good documentation of the effects of marginal food intake over periods of growth and development.

Reliability of data particularly in the areas of health and dietary histories continues to be a problem when surveying large population groups. Many mothers will tell us they are giving adequate formula to their infants rather than admit to not having sufficient formula to give.

The costs of mounting scientific nutritional status surveys are enormous, especially if monitoring techniques are not built in from the beginning of food programs. Most would not want monies directed from food into studies, but it is necessary to plan monies for evaluation of programs.

Because of the lack of recent studies, we must rely on other indicators at this time to evaluate the impact of unemployment and decreases in government nutrition programs on nutritional status and resultant health of all Americans in the eighties. These indicators include: the increase in utilization of 'soup kitchens' (Little Rock-Feed My People-Stewpot project -- steady increase of 25.8% to 51.6% in August of 1982 over 1981.) more participants are families, children and unemployed, not the traditional street people; food pantrys or cooperatives (United Methodist Churches have organized food pantrys with continued increase in requests); the decrease in number of children participating in school lunch; recommendation that a Headstart program provide 100% of Recommended Daily Dietary Allowance because children were getting no other foods; increased numbers of failure to thrive infants admitted to Arkansas Children's Hospital because of inadequate food; increased number of patients' parents asking for free meal tickets while children are hospitalized; and the increased length of stay in hospital of the poorly nourished infant who contracts an infection or disease. An alarming and significant indicator at our hospital is in the increased number of children admitted from abuse and/or neglect which our social workers can document as related to unemployment and lack of money for necessities. Much of the neglect is in the form of not being able to supply adequate food.

In summary, the effects of the recent and current economic conditions will be documented in poor nutritional status of older children and adults in the future which we are already seeing in individuals at greater nutritional risk -- infants, pregnant women, the chronically ill and the aged. While the private sector and some state agencies are attempting to cover the gaps and provide emergency relief in the form of food, their resources are not sufficient to continue for extended periods. In addition, they do not have the the technical and scientific expertise (nor money) to carry out the needed monitoring and studies to determine the effects on the nutritional status of the people they serve. This information is needed now to plan for the future and to protect the health of future generations.

STATEMENT OF DR. HAMISH N. MUNRO, DIRECTOR, HUMAN NUTRITION RESEARCH CENTER ON AGING, AGRICULTURAL RESEARCH SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman and Members of the Subcommittee, it is a pleasure for me to be here today. Mr. Chairman, about 6 percent of the human race is over 65 years of age. The proportion varies from 3 percent in Africa to 15 percent in Western Europe, with 11 percent in the United States. Although it is widely recognized that the elderly need more health care than do other groups, little is known about their nutritional needs, nor can we state with confidence the extent to which nutrition may affect the aging process or health of the elderly. Largely due to the rapidly declining mortality rates of the elderly population in the United States, the National Center of Health Statistics now estimates that by the year 2000 there may be as many as 6,700,000 persons over the age of 85, a larger forecast than previously made. Currently, the average age of residents in nursing homes is 82 years, of whom two-thirds are women. Even among the younger elderly population just over the age of 65 years, some 5 percent are already living in nursing homes, while among those 80 years and older, 20 percent are presently resident in nursing homes.

Nature of the Problem

Aging begins in the young adult and progressively reduces tissue function throughout the remainder of adult life. Accordingly, nutrition is relevent to aging over the whole adult life span. The role of nutrition in relation to aging can be divided into three components. First comes the question of how far nutrition influences progressive age-related erosion of tissue structure and function as the adult grows older. For example, loss of bone mineral content resulting in osteoporosis is generally considered to be influenced by dietary factors, though the best way to reduce the progress of osteoporosis is still disputed. Second, nutrition is one of the major candidates among environmental factors in age-related degenerative diseases. Finally and importantly, there is inadequate knowledge of the nutrient needs of people who have attained old age and generally consume less food than they did as young adults. The major question here is whether some elderly people are consuming amounts of nutrients insufficient to maintain tissue function.

Nutrient Needs of the Elderly

Despite the increasing numbers of elderly in the United States, knowledge of the nutritional needs and evaluation of the nutritional status of this age group has not kept pace. The most recent edition of the Recommended Daily Allowances (1980) largely bases its recommendations for the elderly on extrapolations from studies made on the nutritional needs of young adults. Consequently, it is not surprising that the Recommended Allowances for mature adults are only divided into two categories, namely 23-50 years and 51 years upwards.

Though this situation has been imposed by inadequacy of data, it represents a lack of realism to assume that a 50 year old and a 90 year old person have similar requirements. In this respect, the best-authenticated difference in needs with age is the requirement for energy. From cross-sectional studies of business executives and civil service personnel ranging in age from 20 to 99 years, who were participants in the Baltimore Longitudinal Aging Study, it was possible to show a progressive decrease in average daily intake from 2700 kcal at 20-34 years to 2100 kcal at 75-90 years. With the decline in energy intake, it is also likely that intakes of many other nutrients by older people will be less. The Ten-State Survey (1972) showed marginal or low intakes of several nutrients by some other groups of elderly in the USA.

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A fundamental question is whether the reduction in total food intake leads to nutritional deficiency in some old people, a question to which no unequivocal answer can be given, since we do not know whether the nutrient requirements of the body diminish with aging. Some vitamins that are linked to energy metabolism, such as thiamin, are probably not required in the amounts needed by younger adults because there is less energy to burn. However, some studies on protein needs suggest that these do not diminish in the elderly, and may even increase, though this conclusion is not agreed on by all investigators. Few other nutrients have been examined to determine requirements in older people. Even if we accept the blood levels of healthy young subjects as applicable standards for the elderly, we do not know whether the capacity of the tissues to utilize these circulating nutrients is the same. For example, it has been shown that the vitamin C concentration in the white blood cells of elderly nursing home cases in Britain is half that of the young, and can be raised by adding more vitamin C to the diet. However, there was nothing to indicate improvement in body function. Similarly, our studies show that the capacity of fat cells of aging rats to take up zinc is substantially reduced, thus indicating that aging may change the capacity of cells to take up nutrients. Finally, it must be emphasized that the ultimate criterion of adequacy is the impact each nutrient has on tissue function. We are still a long way from applying this criterion to the needs of the aging adult.

Nutritional Status of the Elderly

The current methods available for identifying malnutrition in elderly populations rely on dietary history, clinical examination and biochemical indices appropriate for younger subjects. Age-related changes affecting absorption, metabolism and excretion of most nutrients indicate the need for age-specific standards appropriate for evaluation of the nutritional status of the elderly.

In Britain, periodic government surveys of the general population have revealed malnutrition in 6 percent of men and 5 percent of women between 70 and 80 years, increasing to 12 percent and 8 percent respectively over 80 years of age. Intakes of iron, thiamin, folate, vitamin C and vitamin D were commonly inadequate. In a New Jersey study, blood levels of vitamins were measured in free-living and in nursing home elderly, and showed unacceptably low levels of thiamine, folic acid, vitamin B6, and vitamin C in some subjects, the pattern of frequency being different in the two elderly populations. A U.S. population survey, the Health and Nutrition Examination Survey (HANES, 1971-1974), found that half of the subjects aged 65-74 had low dietary intakes of calcium and vitamin A and many had equally low intakes of various B vitamins, vitamin C, and iron, regardless of economic status. HANES also collected biochemical nutrient data on an American non-institutionalized population covering the range of 1-74 years. In the 65-74 year old range, the most common nutrients with low blood or urinary values found among 3,479 people were iron, magnesium, and some B vitamins, using criteria based on normally accepted ranges for younger people. The assumption that blood or urinary nutrient values for older people should be the same as those for young people may not be correct.

Special Target Groups

Although the vast majority of American elderly may be well nourished, special subgroups (defined by race, economic status, and life style) may show a much higher prevalence of poor nutrition. From extensive study of the nutritional status of the elderly in England, Exton-Smith has identified target groups of elderly at special risk of malnutrition. These include socially isolated individuals, those with a physical disability contributing to isolation, very old men

living alone, and those with depression and other mental disorders. He points out that housebound people represent 8% of those over 65 years of age in England, which thus amounts to 750,000 people in a national population of all ages of 50 million. The majority of cases of malnutrition will be found in this housebound group, and interventions here will be the most effective.

Experience with Interventions

Once a target group (e.g. the housebound) has been identified, the quality of a person's diet can be roughly assessed by recording the major food classes consumed. The type of the intervention will depend on the circumstances. Meals-on-wheels has been used for those confined to their homes, while congregate feeding is more appropriate for those who are mobile, since it has a socializing effect. In order to have a significant impact on the nutrition of the elderly person, Exton-Smith reckons four meals a week should be provided.

The American experience has not been targeted to a specific vulnerable group among the elderly. Meals were provided by Congress in 1972 through an amendment (Title VII) to the Older Americans Act of 1965. Title VII has since been repealed, however, the authority for these meal programs has been consolidated with Title III of the Act. Dr. Posner has analyzed the impact of this program on the elderly in the Boston area. She discusses the ideal planning process, starting with identifying the nature of the problem, then looking at the various alternative solutions, proceeding to implementation of the most promising solution, and finally evaluation of the program; this last being regarded as an integral and important component in the planning process, not an afterthought. She emphasizes that optimally the impact of a program should be first evaluated for nutritional status of the population under study, the intake of nutrients likely to be obtained from the intervention, and the effect of the program on the nutrition awareness of the participants before and after the intervention. According to Posner, the Title VII nutrition program in the Boston area received high commendation from its recipients, more because of social interaction resulting from congregate feeding than from nutritional benefits that might accrue from the few meals eaten or because of an impact of the program on food purchasing habits of the recipients. A small but significant point is that special ethic or therapeutic dietary needs of potential participants were not met by this program. The Boston survey of the impact of Title VII did not include an assessment of changes in nutritional status, physical performance and health as a result of the dietary intervention. However, this was done in a limited group of recipients of the Title VII congregate meal program in Missouri. Nutritional status and health evaluated by biochemical and clinical examination appear to have been better in the recipients than among non-participating elderly in the same area.

Summary and Recommendations

Future intervention programs should identify nutritionally vulnerable target groups within the elderly population. Such interventions must be monitored for efficacy from the start of the program, and cost-effectiveness demonstrated by improved health and function as well as better nutrient intakes and biochemical indices of nutrient adequacy. Nutritional services to these should be part of a drive for improved social circumstances. The provision of adequate numbers of meals to add significantly to the nutrient intake of this group may prove to be very difficult. A second subset of elderly who deserve to be monitored for nutritional status are those in nursing homes. This population can be better surveyed, and it would indeed be desirable to evaluate the benefits to health that could be achieved by study of their nutrition.

In addition, areas of basic research on nutrition among the

elderly should be carried out. Some possibilities for further monitoring and analysis exist in the following areas:

-Development of capacity to perform epidemiologic and nutritional studies on adults of various ages, in order to show relationships of nutritional status to patterns of health as age advances.

-Studies of the function of individual systems of the body such as the immunological system during aging and the impact of previous and present nutritional factor on them.

-Studies of changes in human metabolism and body composition as age advances, and their relationship to nutrient intake and nutritional status.

-Development of special methodologies to study the dietary needs for protein, energy, mineral, and vitamins.

-Studies of the nutrient needs of older adults for protein and energy needs and their interaction, for minerals, including trace minerals and their interactions, and for vitamins.

-Studies of the effects of nutrition and diet on tissue function of aging animals, and the implications for the aging process in man.

Within the framework of Federal research programs, we must set priorities so as to most effectively utilize available funds. Of course, private research must continue to be encouraged and those results should be integrated with the Government programs to maximize benefits.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions you may have.

NUTRITIONAL EFFECT OF SCHOOL LUNCH AND SCHOOL BREAKFAST

TALK by John S. Akin, Jeff S. Bass, David K. Guilkey, Pamela S. Haines, and Barry M. Popkin (presentor), Department of Nutrition, University of North Carolina at Chapel Hill

During the late 1960s and 1970s, the issues of poverty and undernutrition claimed national prominence. While nutritional imbalances and deficiencies were clearly not limited to low income persons, a disproportionate number of the low income were undernourished. A large proportion of the poor were children of school age. In order to address the nutrition and poverty issues, new federal programs were developed and adjustments were made in existing federally sponsored programs. As examples, the National School Lunch Program (NSLP), in operation since 1946, was authorized to increase federal per-meal reinbursements so that free and reduced-price meals could be served to greater numbers of poor children. The School Breakfast Program (SBP), originally a pilot program targeted to children in schools in low income districts, was made a permanent program and funding was made available to all schools that chose to offer the breakfast program. Until recently, however, no study based on a nationally representative sample of children has assessed how participation in the NSLP and the SBP affects the nutrient intake of school age children. In a series of studies, we have examined the ways in which school lunch and school breakfast participation affect the nutrient intakes of children at all income levels.

Nutritional Status of School Age Children

To determine whether public expenditures for school feeding programs can be justified on nutritional grounds, it is important to review the nature and extent of nutritional imbalances and undernutrition among school age children. Several national surveys have provided dietary, clinical, and/or biochemical measurements useful for assessing nutritional status. These include the 1977-78 Nationwide Food Consumption Survey (NFCS) and the Health and Nutrition Examination Survey of 1971-74 (HANES I). As table 1 shows, based on the HANES I data, serious indications of nutritional deficiencies -- the presence of clinical symptoms -- are generally present only for a small proportion of the school age population. Teenagers below the poverty level, however, are the exception. Between 6 and 19% of all poor teenagers were found to have clinical symptoms of calcium and niacin deficiency. In general, among HANES I children, nutrient deficiencies were more prevalent among the children from low income families, among blacks, and among teenagers. Milder subclinical deficits are widespread in the population. Deficiences such as these may have long term effects, ranging from limiting of growth (particularly for the adolescent) and impairing of the quality of dental health, to contributing to limited attention span.

Table 1. Prevalence of clinical symptoms indicative of nutrient deficiency (Percentage of children in the category suffering clinical symptoms)

	6-12 years		12-18 years	
	Above Poverty	Below Poverty	Above Poverty	Below Poverty
Calcium				
whites	5.7%	4.5%	17.8%	12.5%
blacks	7.6	6.4	18.9	12.4
Vitamin A				
whites	7.9	5.9	10.6	6.5
blacks	14.7	2.6	7.6	5.1
Vitamin C				
whites	3.6	4.5	29.1	9.0
blacks	7.8	1.0	27.8	19.2
Niacin				
whites	4.2	3.9	6.1	7.2
blacks	2.8	11.0	18.6	10.4

Nutrient intake studies of school-age children generally support the findings of the clinical studies. Nutrients most likely to be consumed in inadequate quantities are energy, iron, calcium, riboflavin, Vitamin B6, and magnesium. Although average intakes of Vitamin A and Vitamin C usually exceed the Recommended Dietary Allowance (RDA), excessive consumption by some students obscures the very low intakes of others. Among children of ages 6 to 11 in our NFCS samples, one-quarter or more consumed less than two-thirds of the age-adjusted RDAs for energy, Vitamin B6, and Vitamin A. Even more of the teens had poor diets. One-quarter or more of all sample teenagers ages 12 to 18 consumed less than 60 percent of the RDA for Vitamin B6, Vitamin A, iron, and calcium. The diets of teenage girls were consistently low in their nutrient adequacy ratings.

Presence of clinical symptoms indicative of nutrient deficiencies and a widespread underconsumption of selected nutrients within the school-age population indicate that a public health problem does exist. Although it is currently popular to attempt to link child health practices, such as excessive consumption of energy, saturated fat, cholesterol, and sodium, to the probability of developing any number of adult chronic disease states, it is important to emphasize that nutrient underconsumption may tend to have important and immediate developmental and behavioral consequences.

Research Framework

We have conducted a series of analyses to determine the ways participation in the NSLP and SBP affects the nutrition of school-age

children (1). Results discussed below are based on multivariate, statistically controlled regression analyses. The samples consist of school-age children selected from the individual files of the Basic and Low Income samples of the Nationwide Food Consumption Survey (NFCS), 1977-78, and the Survey of Food Consumption in Low-Income Households, 1979-80. In each study, individual average one-day nutrient intakes are the primary measures we compare among children. In general, results presented here are for children in the Basic Sample of the 1977-78 NFCS. We statistically control for school meal participation and other factors thought to affect levels of nutrient consumption among children. These control factors include demographic, socioeconomic, and individual child characteristics -- such as age, sex, ethnic background, and anthropometric measures -- all of which may influence food consumption patterns. The analyses are presented for two groups of children, those 6 to 11 years old and those 12 to 18 years old.

School Lunch Participation

Children 6 to 11 years old. School Lunch Program participation makes an important contribution to the diets of children of all ages. When we control for all other factors thought to influence consumption, so that the only difference between students is school lunch participation, younger children who participate in the school lunch program consume more of every nutrient during a 24-hour period than do children who do not participate. The magnitude of the impact for each of the younger children can be quite sizable. For example, as shown in Table 2, for children of all incomes, school lunch participants consume about 6 percent more of their energy requirement than do nonparticipants who eat other kinds of lunch. Participants consume about 20 percent more of the RDAs for calcium, iron, and Vitamin B6, and about 25 percent more of the Vitamin C and riboflavin (not shown) RDAs. School lunch participants also consume 67 percent more of the Vitamin A RDA than do children who eat other kinds of lunches, such as a la carte meals or brown bag lunches from home. Over the same one-day time period, children who eat other, non-school lunches do not seem to consume any more calcium, iron, or Vitamin B6 than do children who eat no lunch. Therefore, school lunch participation is particularly important for children ages 6 to 11. Not only does participation increase intakes, but three of these nutrients -- energy, Vitamin A, and Vitamin B6 -- have been identified as particular nutritional problems for younger children.

Adolescents ages 12 to 18 years. Teenagers also benefit substantially from School Lunch Program participation. Over a day's time, when all other factors affecting consumption are accounted for, school lunch participants consume more of all nutrients than do nonparticipants. As seen in Table 3, nutrients frequently consumed in inadequate quantities by teenagers, teenage school lunch participants consume about 7 percent more of the niacin RDA (2) and 15 percent more of the RDAs for calcium and Vitamin B6. Similarly, older participants show the benefit of school lunch consumption with intakes of riboflavin and Vitamin A which are 24 to 44 percent of the RDA higher than the intakes of nonparticipants.

Because clinical symptoms of calcium and Vitamin A deficiencies have been noted among teenagers, and dietary intakes of calcium, riboflavin, Vitamin A, and Vitamin B6 are particularly low for a sizable proportion of this population, school lunch participation obviously fills important nutritional gaps for this group.

Table 2. Selected School Lunch Program Benefits, as a Percentage of the Recommended Dietary Allowance, Children Ages 6-11, NFCS Basic Sample, 1977-78

	Benefits relative to children eating other kinds of lunches*	Benefits relative to children who eat no no lunch
Energy	+6%	+15%
Calcium	+19	+12
Vitamin B6	+21	+23
Iron	+19	+20
Vitamin A	+70	+28
Vitamin C	+21	+67

*For example, over a 24-hour period, children who participate in the school lunch program consume 6 percent more of the energy RDA than do children who eat other kinds of lunches and 15 percent more than children who eat no lunch.

Table 3. Selected School Lunch Program Benefits as a Percentage of the Recommended Dietary Allowance, Teenagers Ages 11-14, NFCS Basic Sample

	Benefits relative to children eating other kinds of lunches		Benefits relative to children who eat no lunch	
	Males	Females	Males	Females
Energy	+8%	+10%	+18%	+23%
Calcium	+16	+17	+26	+26
Niacin	+7	+10	+18	+23
Riboflavin	+24	+30	+32	+39
Vitamin B6	+13	+13	+19	+20
Iron	+7	+7	+15	+15
Vitamin A	+35	+44	+30	+38
Vitamin C	+11	+11	+36	+36

Low Income Children. When we look at the impact of school lunch participation for children at differing levels of income, it becomes obvious that the school lunch program makes a particular difference for children of poorer households. For example, young school lunch participants in households with incomes below the poverty index not only consume more energy than do similar children who eat other kinds of lunches, but the size of energy benefit is twice as large (10 percent of the RDA) as the energy impact for similar participants from households with higher incomes (5 percent of the RDA). Similarly, poor, younger NSLP participants consume approximately 22 percent more of the Vitamin B6 RDA than do children eating other types of lunches.

The nutrient intake benefits of school lunch participation are even greater for low income teenagers than for their younger counterparts. Table 4 presents differences between teens in high and low income households. Low income teenage school lunch participants consume approximately 782 kilocalores per day more than do poor adolescents who eat other types of lunches. This is about one-third of the teenage girls' energy requirement and about one-forth of the male RDA. (In contrast, at higher income levels the energy impact is only 169 kilocalories.) From our research, it is impossible to determine if this sizable energy impact contributes to overweight among low income teenagers, or even if it can be said with certainty that school lunch participation provides food and nutrients where none would have been consumed in the absence of the program. It is clear, however, that overall diets of the poorest teenagers are greatly helped by school lunch participation. Low income teenage participants consume over 40 percent more of the Vitamin B6 RDA than do nonparticipants -- a finding of particular nutritional significance among teenage girls who traditionally have very low intakes of this nutrient. Similarly, low income teenage school lunch participants consume nearly 30 percent more of the iron RDA than do nonparticipants, in contrast to a 6 percent benefit for teen participants in higher income households. Since iron deficiency is a major public health problem, particularly among adolescents, these nutrient benefits can make important health contributions. Vitamin A benefits of school lunch participation are also significant and impressive. Higher income students add about 20 percent of the Vitamin A RDA when they consume school lunch. For low income teens, participants consume nearly 80 to 95 percent more of the RDA than do other poor teenagers who eat other forms of lunch.

School Breakfast Participation

Children 6 to 11 years old. Children who consume school breakfast also have diets superior to those who eat other kinds of breakfast, but the relative nutritional impacts are not as consistently significant as those between school lunch participants and those eating other kinds of lunches. Over a day's time, younger children who participate in the School Breakfast Program consume more Vitamin B12, riboflavin, and Vitamin A than do children who eat other forms of breakfast.

Although we have no scientific research results to support this contention, it is almost certain that the availability of a School Breakfast Program increases the frequency with which some children eat a breakfast. For the younger child who eats a SBP breakfast, but would not have eaten a breakfast in the absence of the program, the nutritional benefits are important. Breakfast consumption increases the day's nutrient intake of every nutrient, relative to intakes of the group of younger children who eat no breakfast. For energy, the impact is nearly one-quarter of the RDA. The Vitamin B6 and iron

Table 4. Selected School Lunch Program Benefits, as a Percentage of the Recommended Dietary Allowance, NFCS Basic Sample, 1977-78

	Poor Teenagers*	Higher Income Teenagers*
Females		
Energy	33%*	8%
Vitamin B6	40	11
Iron	28	6
Vitamin A	97	25
Males		
Energy	27%	6%
Vitamin B6	40	11
Iron	28	6
Vitamin A	77	20

*These results compare the 24-hour intakes of school lunch participants to the intake of similar income teenagers who consume other kinds of lunches.

intakes of breakfast eaters are one-third of the requirements greater than those of nonbreakfast eaters. Vitamin C intakes are increased by nearly the size of the entire Vitamin C RDA. The calcium consumption impact approaches 40 to 45 percent of the calcium RDA.

Clearly, Vitamin A, energy, Vitamin B6, Vitamin C, and calcium are nutrients underconsumed by large portions of the preteen population. For children who normally eat other types of breakfast, of the above nutrients, School Breakfast Program participation appears to contribute to improved Vitamin A nutrients. For children who eat a SBP breakfast where breakfast would not have been eaten otherwise, the nutritional implications of participation are much more important.

Adolescents ages 12 to 18 years. Over a one-day period, when we control for other factors affecting teen nutrient intake, adolescent School Breakfast Program participants consume more protein, calcium, riboflavin, magnesium, thiamin, and iron than do teens eating other kinds of breakfasts. The calcium (45 percent of the RDA), riboflavin (65 percent of the female RDA and about 50 percent of the male RDA), and iron (nearly 25 percent of the RDA) intake impacts have particular nutritional status importance. When one considers that these differences are for teens who differ only in that one eats a school breakfast and one eats a nonschool breakfast, the magnitudes of the effects are even more impressive.

As with the younger age group, if a teenager consumes a school breakfast, but would not have eaten breakfast were the program not available, the nutritional implications are even more comprehensive. Relative to teenagers who do not consume breakfast, School Breakfast Program teenage participants consume more of every nutrient except Vitamin B12 and Vitamin A. For this group, who may be encouraged by the presence of the SBP to eat breakfast, daily riboflavin intakes are nearly 100 percent of the RDA greater; with calcium intakes, 75

Table 5. Selected School Breakfast Program Results, as a Percentage of the Recommended Dietary Allowance, NFCS Basic Sample, 1977-78

	Benefits relative to children eating other kinds of breakfast	Benefits relative to children who eat no breakfast
Younger Children		
Energy	3%*	23%
Calcium	28	72
Vitamin B6	31	72
Iron	31	66
Vitamin A	348	380
Vitamin C	38	127
Older Children		
Energy	15%	35%
Calcium	44	75
Vitamin B6	15	38
Iron	23	42
Vitamin A	21	16(1)
Vitamin C	32	91

*These percentages are calculated from results with various levels of statistical significance.

percent; Vitamin C intakes, at least 50 percent; iron intakes, 40 percent; Vitamin B6 intakes, 35 percent; and niacin intakes, 30 percent greater than for comparable teens who do not eat any breakfast. While the growth and development implications of these additions are important for both sexes, given the larger proportion of teenage females with inadequate dietary intakes, these impacts are particularly significant for the females.

Low income children. As with school lunch participation, the nutrient intake impacts of school breakfast participation are greatest among children from low income households. As examples, among low income children ages 6 to 11, participants consume over 10 percent more of the energy RDA than do children eating other kinds of breakfasts. Similarly, low income SBP participants consume 25 percent more of the RDA for calcium, 30 percent of the riboflavin RDA, 15 percent of the Vitamin B6 RDA, and 85 percent more of the Vitamin C RDA, relative to daily intakes of children who eat other types of breakfast.

As is the case with higher income students, daily nutrient intakes are augmented for low income younger students who eat a school breakfast but would not eat breakfast if the program were unavailable. Adolescents from poorer households also receive substantial nutritional benefits from School Breakfast Program participation. Relative to intakes of other low income teens who consume other kinds of breakfasts, over a one-day period, SBP participants consume substantially

more calcium, Vitamin B6, riboflavin, and Vitamin A. When availability of a SBP encourages a low income teen to eat a breakfast, daily intakes of every nutrient increase. Teens in this low income category consume larger quantities of Vitamin B6, Vitamin A, and Vitamin C relative to higher income teens.

Nutrition Implications

Participation in the School Lunch and School Breakfast Programs results in increased nutrient intakes. These increases are particularly important for nutrients such as energy, calcium, riboflavin, iron, Vitamin B6, and Vitamin A, for which we have either clinical evidence of deficiency within the school-age population or dietary survey evidence indicating consumption below recommended levels by significant segments of the school-age population. However, the nutritional effects of school meals participation can also be judged by determining how participation affects the overall diet quality, or the nutritional balance of a diet. Since each nutrient has a metabolic function, independent of intakes of other nutrients, consistent low intake of even one nutrient can have deleterious health effects.

In our analyses, we have identified factors which influence the level of nutrient consumption for the nutrient considered least adequate for each surveyed child in terms of the percentage of the RDA. This RDA for the least adequate nutrient is termed the minimum nutrient adequacy ratio. Selected results of this analysis are presented in Table 6. Across all samples and for all ages, participation in a school lunch program raises the level of the minimum nutrient adequacy ratio by 14 to 17 percentage points, relative to that of students who eat other types of lunches. In general, consumption of a nonschool lunch is not associated with a significant change in the minimum nutrient adequacy ratio. Only for adolescents in the Basic sample is nonschool lunch consumption associated with any increase in the level of consumption of the most deficient nutrient.

School Breakfast Program participation is even more important in helping children to achieve balanced diets. Within our Basic sample, the level of the minimum nutrient adequacy ratio is approximately 30 percent higher for SBP participants than for children who eat other types of breakfasts. If, in fact, availability of a school breakfast program encourages school-age children to eat breakfast who normally would not, the nutritional benefits are even more striking. Among children of all incomes, the minimum nutrient adequacy ratio of SBP participants is approximately 50 percent higher than that of children who do not eat breakfast. This result is found for both age groups. By any interpretation, School Breakfast Program participation and School Lunch Program participation improve the nutrient balance of diets of children of school age. Not only does school meal program participation augment intakes of many individual nutrients, but such participation increases nutrient intakes for those nutrients most in need of supplementation -- nutrients normally consumed in inadequate supply by school-age children.

Summary and Implications

Participation in the School Breakfast and School Lunch Programs is associated with improvements in nutrient intakes frequently found to be underconsumed by children of school age. Participation is particularly important for low income children of all ages, for whom the nutritional benefits are even greater than for children in higher income households.

Table 6. Impact of School Meals Program Participation on Levels of Minimum Nutrient Adequacy Ratio

	Older Children	Younger Children
SBP participation benefits relative to children eating other types of breakfast	30%*	34%
SBP participation benefits relative to children eating no breakfast	58%	52%
NSLP participation benefits relative to children eating other types of lunch	17%	14%
NSLP participation benefits relative to children eating no lunch	19%	21%

*For example, the least adequately consumed nutrient (Minimum Nutrient Adequacy Ratio) is 30 percent of the RDA greater for School Breakfast Program participants than for children who eat other kinds of breakfasts.

If one evaluates the effectiveness of the school meals program on the basis of improvements in the dietary quality of participating children relative to children who are not participating -- particularly for low income children -- our analysis provides strong evidence that participation is associated with increases in nutrient intakes for some of the most needed nutrients. For younger children, particular needs for increases in energy, Vitamin B6, and Vitamin A intakes are met by program participation. Among teenagers, participation helps to fill several nutritional gaps -- notably for calcium, Vitamin B6, Vitamin A, and iron. Where program availability results in a child's consuming a meal where a meal would otherwise not have been consumed, a substantial nutritional benefit is seen. This benefit is particularly evident where School Breakfast Program availability encourages consumption of breakfast. Strong evidence that participation in either the NSLP or SBP helps to improve the nutritional balance of diets of school-age children is provided by the fact that the level of consumption for the least adequately consumed nutrient is significantly increased.

While relatively more significant individual nutritional benefits are realized by low income children, children in higher income levels also receive important benefits. Because some children at all income levels underconsume selected nutrients, program participation helps to fill the needs of all groups of children. Serious nutritional problems exist among segments of the adolescent population. That adolescent participants particularly benefit from the school meals programs is added evidence that school meals programs are a viable and effective means for improving the health of the nation's children.

Footnotes

1. For complete results, the interested reader may refer to:

   Popkin, B., Akin, J., Haines, P., MacDonald, M. and D. Spicer (1980) "Nutrition Program Options for Maternal and Child Health." Institute for Research on Poverty, University of Wisconsin, Madison, Special Report Series No. SR28.

   Akin, J., Guilkey, D., Haines, P., and B. Popkin (1982) "The Nutrient Impact of School Feeding: A. The National School Breakfast Program, B. The National School Breakfast and Lunch Program Interactions." Completed for USDA Contract #53-3244-9-191.

   Akin, J., Guilkey, D., and B. Popkin (1983) "Impact of the School Lunch Program on Nutrient Intake: A Switching Regression Analysis." (American Journal of Agricultural Economics (in Press).

   Attachment 1 Table 1 Gives the full set of papers and reports prepared on NSLP and SBP participation and nutrient impact analysis.

   Akin, J., Guilkey, D., Haines, P., and B. Popkin (1982) "The Impact of the School Lunch Program on Nutrient Intakes." School Food Service Research Review (in press for 1983 winter edition).

April 5, 1983

Attachment

Selected List of School Feeding Program Studies Related to UNC Research Contract With The USDA Consumer Nutrition Center (1978-1983)

1. Akin, J., Guilkey, D., and B. Popkin. "Impact of the School Lunch Program on Nutrient Intake: A Switching Regression Analysis." American Journal of Agricultural Economics (in press for 1983 edition).

2. Akin, J., Guilkey, D., Haines, P., and B. Popkin. "The Impact of The School Lunch Program on Nutrient Intakes." School Food Service Research (in press for 1983).

3. J.S. Akin, D. Guilkey, Barry M. Popkin, J. H. Wyckoff. "The Demand for School Lunch: An Analysis of Individual Participation in the School Lunch Program." Journal of Human Resources (in press for 1983 edition).

4. _____ "The Demand for School Lunch: An Analysis of Low Income Individual Participation in the School Lunch Program, 1977-78 and 1979-80." (Unpublished report)

5. _____ "The Demand for School Breakfast: An Analysis of Individual Participation in the Schol Breakfast Program." Completed for USDA Contract #53-3244-9-191.

6. _____ "An Application of the Theory of Resource Allocation Within the Family: Leakages from the School Lunch Program." (In process for USDA review)

7. P.S. Haines, J.B. Akin, D.K. Guilkey and B. Popkin, "The Nutrient Impact of the School Breakfast Program." (Article finalized for Journal submission after USDA review.)

8. Akin, J., Guilkey, D., Haines, P., and B. Popkin (1982). "The Nutrient Impact of School Feeding: (A) The National School Breakfast Program, (B) The National School Breakfast and Lunch Program Interactions." Completed for USDA Contract #53-3244-9-191.

9. Popkin, B., Akin, J., Haines, P., and MacDonald, M., and D. Spicer (1980). "Nutrition Program Options for Maternal and Child Health." Institute for Research on Poverty, University of Wisconsin, Madison, Special Report Series No. SR28.

10. Akin, Bass, Guilkey, Haines, Popkin, "Nutritional Effect of School Lunch and School Breakfast." In Outlook '83 (Washington, D.C., USDA, December 1982), pp. 527-38.

11. Akin, Guilkey, Popkin, Bass and Haines. "Who Benefits from School Feeding? An Analysis of Participation in the National School Lunch Program." Food Technology 35 (1981): 70-79.

12. Akin, Guilkey, Haines and Popkin. "The Nutrient Impact of School Feeding Programs in Hawaii." November 24, 1982. Completed for USDA Contract #53-3244-9-191.

13. Akin, Guilkey, Popkin, Sciscento. "An Analysis of School Lunch and Breakfast Program Participation in Hawaii." November 10, 1982. Completed for USDA Contract #53-3244-9-191.

14. Akin, Guilkey, Haines and Popkin. "A Summary of Analysis of the Effect of the NSLP on Nutrient Intake." Completed for USDA Contract #53-3244-9-191.

15. Akin, J., Guilkey, D., Popkin, B., Wyckoff, J. "The Demand for School Lunch: An Overview of Analysis of Individual Participation in the School Lunch Program" (summer 1981). Completed for USDA Contract #53-3244-9-191.

[Questions from Senator Helms and Dr. Popkin's answers thereto:]

Question. Would you please explain again how participation in the National School Lunch Program affects low income children relative to higher income children?

Answer. We found in our various studies that the nutrient intake of children from all income levels was improved significantly when they participated in the NSLP. Low income children, however, benefited more in absolute as well as relative (increased nutrients as a proportion of their diet) than higher income ones.

Question. Does this mean, in your analysis of various Nationwide Food Consumption Survey samples, you found nutrient deficiencies among higher income children and that, in turn, NSLP participation reduced or eliminated these deficiencies?

Answer. Yes. We found nutrient deficiencies among higher income children that were reduced or prevented as a result of participation in the NSLP. For example, children aged 8 who ate a non-NSLP lunch consumed 81 percent of their vitamin B_6 RDA. With NSLP participation, they consumed 101 percent of the vitamin B_6 RDA.

Question. You mentioned that participation in school feeding programs affected not only nutrient intake but also the balance of the diet by improving the intake of the most deficient nutrient. Please elaborate on this point.

Answer. We looked at the impact of NSLP and SBP participation on the level of least adequately consumed nutrient, the minimum % of RDA of each child (this is often termed the minimum nutrient adequacy ratio). This can measure the effect of these programs on the overall balance of the diet. We found that NSLP participation significantly increased the minimum nutrient adequacy ratio by 12 to 18 percent. SBP participation increased the minimum percentage of the nutrient adequacy ratio by 30 percent. If the child had not eaten breakfast, the SBP effect on the minimum NAR was 50 percent.

Question. You studied the diet of low income children in 1977-78 and 1979-80 and the effect of school feeding programs on this. What were the results, and was there a difference in the two time periods?

Answer. We found that participation in the NSLP in 1979-80 was associated with greater increases in the child's nutrient intake than it was in 1977-78. Moreover, we found that concurrently the nutrient contribution of the non-NSLP lunch of children decreased in nutrient value. Thus NSLP participation made a more significant contribution to the diet of low-income children in 1979-80 than in 1977-78. We cannot explain why this occurred.

Question. You have also studied the determinants of NSLP participation. What effect did you find with regard to price increases among full price students? Among reduced price, low-income children?

Answer. Based on our analysis of NSLP participation, we estimate that a 50 percent increase in price among full price students is expected to reduce school lunch participation by 20 percent for a reduction of about 3 million lunches a day. We will not estimate with the data available to us the specific price-participation relationship for reduced price children. Also our full price estimate ignores a second crucial relationship, the link of NSLP price changes to anticipated student participation rates at the district and school level to school district and school decisions to close their cafeterias. We did not have data available for this analysis.

Question. Your research has utilized the Nationwide Food Consumption Survey of the Consumer Nutrition Center, HNIS, USDA. We understand you are undertaking similar research among elderly persons now and are actively involved in food and nutrition research in the U.S. Your research has been very valuable. Do you feel it

will be possible to undertake similar research on Americans in the early 1980's? That is, do we have information available or will we soon have such information available on Americans' nutritional status in the first half of this decade?

Answer. The USDA HNIS Consumers Nutrition Center and the DHHS NCHS are planning surveys for the 1980's. At this time the only survey funded by the government in the first half of this decade will be the Hispanic HANES survey. HANES, however, is more of a health than a food and nutrition and program evaluation data collection effort. The Hispanic HANES appears to have been somewhat delayed by budgeting cuts but it will provide important data on this population. There is no earlier survey against which to compare these results. Moreover, the follow up to the HANES I and II surveys appears unlikely to be initiated for several years.

The USDA is undertaking research which will lead to a new longitudinal nutrient intake survey on individuals. This will begin in 1985 and the follow up to the 1977-79 Nationwide Food Consumption Survey will not begin until 1987. Thus there appears to be a big gap in a national record of the nutritional needs of Americans in the first half of the 1980s. Not only do we need to understand our present diet but the effects of various programs and other factors. These data will be unavailable and care must be taken to ensure that DHHS and USDA will have the funds for such efforts in the future.

Question. How has participation in the School Lunch Program changed since 1981, when the eligibility criteria were modified?

How has this change affected: (1) the participation of schools, particularly in low-income areas? (2) children, who receive free or reduce price lunches?

Have similar changes occurred in participation in the School Breakfast Program?

Are there any changes demonstrated (beyond the nutritional ones) in the learning ability of the children who participated in these programs?

Answer. First, data are unavailable for careful analysis of such issues since we made the significant changes in our eligibility criteria and levels of subsidy in 1981 for the NSLP and SBP. In fact, FNS USDA has published a RFP to analyze just this issue in 1983-84. Consequently, my comments would be based only on published data of the USDA which do not provide insights into the reasons for the tremendous drop in schools participating in each program. Our earlier analysis would have predicted very closely the level of participation decline we'd see in schools with the NSLP when the prices increased.

Second, recently we've begun to have research published which has related hunger and nutritional status to various dimensions of learning. Most important is the work of Pollitt and his colleagues. For example, they assessed the effects of skipping breakfast on the speed and accuracy of response in several problem-solving tasks in 9-11 year old children. They found that brief fasting was associated with impaired ability to use visual stimuli to perform cognitive tasks. (Pollitt et al., "Brief Fasting, Stress and Cognition in Children," Am. J. Clin. Nutrition 34: 1526, 1981). This is really the first careful clinical research in this area which has found an important relationship.

21-673 O - 83 - 13

STATEMENT OF DR. J. MICHAEL McGINNIS, DEPUTY ASSISTANT SECRETARY FOR HEALTH (DISEASE PREVENTION AND HEALTH PROMOTION), DEPARTMENT OF HEALTH AND HUMAN SERVICES

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: Thank you for the opportunity to appear before the Subcommittee today to discuss Department of Health and Human Services (DHHS) activities related to nutrition and nutrition status monitoring.

With me today are several officials very closely associated with departmental activities in nutrition: Dr. Allan Forbes, Associate Director for Nutrition and Food Sciences of the Food and Drug Administration (FDA); Dr. Vincent Hutchins, Director for Maternal and Child Health of the Health Resources and Services Administration (HRSA); Mr. Robert Murphy, Director of the Health Examination and Statistics Branch of the National Center for Health Statistics; and Dr. Frederick Trowbridge, Director of the Nutrition Division of the Center for Health Promotion and Education in the Centers for Disease Control. At the conclusion of my testimony, they will be available to answer questions about details of the programs which I will be reviewing for you.

Fostering activities to improve the nutritional status, awareness and practices of Americans is of fundamental importance to our efforts to ensure better health for our citizenry. I'd like to offer a brief overview of departmental nutrition efforts in the major categories of activity, followed by an elaboration on the component of special interest for today's session--nutritional status monitoring.

HHS NUTRITION ACTIVITIES

In recent years, a number of DHHS nutrition-related initiatives have been sponsored. These include our efforts to strengthen nutrition research, to establish Clinical Nutrition Research Units, and to establish a National Nutrition Monitoring System based on sponsorship of the Health and Nutrition Examination Surveys (HANES I and II), as well as implementation at CDC of a Nutritional Status Surveillance System (NSSS). Other significant efforts include the issuance of Dietary

Guidelines for Americans, the establishment of specific and measurable objectives in nutrition, a sodium reduction initiative, and a comprehensive review of infant nutrition.

Coordinating and overseeing these activities is the DHHS Nutrition Policy Board, which I chair, and several of the members of which are with me here today. The Board is comprised of six standing Subcommittees, one each for Nutrition Research, Nutrition Education, Nutrition Services and Training, Food Safety Quality and Regulation, International Nutrition, and Nutrition Monitoring.

Nutrition Research. The sponsorship of human nutrition research is a vital activity of the Department of Health and Human Services. The range of research activities is wide and includes work in three major areas: biomedical and behavioral sciences, food sciences, and nutrition education. In FY 1981, approximately 160 million dollars were devoted to human nutrition research from DHHS funds. Several PHS agencies participate, such as FDA, CDC, and ADAMHA, but about 93 percent comes from the National Institutes of Health (NIH).

Virtually all of the 11 NIH Institutes has an active nutrition related agenda. The various research efforts are coordinated through the NIH Nutrition Coordinating Committee, and are coordinated with similar efforts of other Departments such as the Department of Agriculture, the Department of Defense, and the Veterans Administration, through the Joint Subcommittee on Human Nutrition Research (JSHNR) of the Office of Science and Technology Policy in the Executive Office of the President.

Nutrition Education. The second area I'll cover is our Nutrition Education activities. All of our health and social service related agencies are involved in one way or another in nutrition education efforts. Our Dietary Guidelines for Americans have been based on the current scientific knowledge concerning the relationship between diet and certain prevalent diseases. The Guidelines continue to provide a solid basis for departmental policies and public recommendations on nutrition. We've developed an inventory of a comprehensive range of nutrition

information and education materials which are produced by various DHHS agencies and we are attempting to consolidate that inventory with a similar effort at USDA.

Under the leadership of the Food and Drug Administration, we have initiated a sodium awareness campaign to reduce on average the amount of sodium in the American diet and to give consumers more information about the sodium content of the foods they eat. Also through our Food and Drug Administration, we conduct consumer surveys on national probability samples of food shoppers which permit tracking of changes in consumer perceptions, knowledge, and purchasing practices. These surveys are used to measure changes over time and to determine how consumers may be influenced by activities such as nutrition labeling. Labeling itself is of course the largest potential source of nutrition information available to the public. It provides point of purchase information about individual foods to millions of consumers, and in a continuing effort to improve food labeling information, FDA has developed several alternative nutrition label formats which it is planning to consumer test in the near future.

Furthermore, the DHHS has sponsored a number of efforts specifically targeted to the consuming public which include prominent components devoted to nutrition. Examples include the "Medicine for the Layman Series" of the National Institutes of Health which has had sessions devoted to obesity, to cholesterol, and to lifestyle; the "Eat Well, Be Well" effort which the Metropolitan Life Insurance Company sponsored in consultation with NIH, and which has resulted in the development of a series of publications and public service spots about nutrition; and the "Healthy Mothers, Healthy Babies Campaign" which the Department has initiated and has organized around a vast array of activities sponsored by more than 50 participating coalition members interested in improving the prenatal health habits of pregnant women. In addition, our Administration on Aging includes nutrition education as part of its nutrition services efforts for the elderly.

Nutrition Services and Training. The third area is Nutrition Services and Training, which includes work through essential components of the health care delivery systems which we operate or support. Nutrition services include: food services in hospitals, long-term care institutions, child care centers, and meal sites for the elderly; screening and assessment of the nutrition status of individuals; treatment and follow-up including the implementation of nutritional care plans for individuals; counseling and education programs; referral to community resources; and promotion of sound nutritional practices in the community. These services are provided for example by the Public Health Service through assistance to State health departments administering MCH services block grants and through grantees of primary care projects which develop and provide nutrition services to disadvantaged and underserved populations.

Beyond the Public Health Service, nutrition services are also important activities of the Office of Human Development Services (OHDS). OHDS administers the Social Services Block Grant under Title XX of the Social Security Act through its Office of Policy Coordination and Review. Child day care is one of the largest Title XX service expenditures which in many cases includes nutritious meals and snacks. OHDS programs which provide important nutritional aid to the two ends of the age spectrum include the Head Start Program and the Nutrition Services Program for the Elderly under the Older Americans Act. Head Start includes both nutrition education, and nutritious meals and snacks. The HHS-funded nutrition portion of our Head Start Program has grown from $48 million in 1980 to $60 million in 1983. USDA contributes an additional amount through its Child Care Food Program. The OHDS' National Nutrition Program for the Elderly provides low cost, nutritionally sound meals for older persons with an emphasis on those in the greatest social and economic need. In FY 1982, more than 190 million meals were provided to the elderly in group settings and in the home. The total for the congregate meals program and home delivered meals

program has grown from $320 million in 1980 to $381 million in 1983.

Food Safety and Quality. The fourth area of activity is that of Food Safety and Quality. The Food and Drug Administration is, of course, our principal operative in these activities and carries out its responsibilities through three general kinds of activities: the issuance of regulations and guidelines for processing and packaging; the development of policy with respect to food safety oversight, and the sponsorship of an active surveillance and review program to ensure that policies and regulations are implemented.

It is also important to point out that not all the FDA activities are regulatory; a good example is the work of the FDA in seeking voluntary sodium labeling of food products as well as voluntary reduction of the overall sodium content of certain processed foods. In carrying out its responsibilities, the FDA maintains close ties with its sister Public Health Service agencies such as NIH, CDC, NCHS and also with the USDA, the other major Federal food regulatory agency.

International Nutrition. The fifth area is International Nutrition. While we are not an international aid agency, we do play a substantial role in the international health community's efforts to improve nutrition in the developing world. Each of the activities I have already described provides important information and reference points for other countries and multinational organizations in designing their own programs. Beyond that, we engage in some direct efforts as a result of binational agreements and our cooperation with multinational organizations. Both CDC and the Office of International Health work with the Agency for International Development in providing technical assistance on nutritional status assessment, surveillance and evaluation in selected developing countries. The Food and Drug Administration participates in the work of the Codex Alimentarius, a United Nations project to establish food standards for international trade. And Public Health Service scientists are active participants in the WHO's and UNICEF's work to improve maternal and child health and nutrition.

NUTRITION MONITORING AT DHHS

Let me now turn to a specific focus on an issue of concern to us all: our ability to assess and monitor the nutritional status of the American people. Working with USDA, we have specified five major activities of a National Nutritional Monitoring System: physical and biochemical measurements of health status, food consumption measurements, food composition measurements, dietary knowledge and attitudes assessment, and food supply determinations. A joint implementation plan has been developed by DHHS and USDA which spells out the ways in which we can improve our efforts. As the department with the primary responsibility for issues related to nutrition and human health and disease, the Department of Health and Human Services has extensive activities spanning the first four of these categories. Activities related to food availability are carried out by the Department of Agriculture, and several of the other activities are shared by the two Departments. Let me deal with each one of these areas.

Health Status Measurements. Through the National Health and Nutrition Examination Survey (NHANES), which is at the heart of the DHHS contribution to a National Nutrition Monitoring System, DHHS has the principal responsibility for periodically assessing the health and nutritional status of Americans through physical and biochemical measurements. Such measurements include physical examination, anthropometry, blood cell determinations, blood and urine biochemistries, as well as X-rays and functional assessments. Beyond NHANES, a number of other NCHS surveys provide important information for assessing the health impacts related to nutritional status--for example, natality data, the National Natality and Fetal Mortality Surveys, the Health Interview Surveys, and the National Surveys of Family Growth. In addition, our Centers for Disease Control has in recent years developed a growing capability for continuous monitoring of key indicators of nutritional status for high risk pediatric and pregnant populations. This CDC effort, called the Nutritional Status Surveillance System, gathers data

for analysis and rapid feedback to 32 participating States on height, weight, hemoglobin and hematocrit levels of some children and pregnant women in WIC, and other nutrition and health programs.

Food Consumption Measurements. Assessing the types and quantities of nutrient intake for Americans is also an important component of nutrition monitoring. DHHS activities in this respect are supported through the 24 Hour Recall Survey of NHANES, as well as through ongoing Food and Drug Administration work analyzing the nutrient content of typical diets (Total Diet Study). FDA also sponsors occasional special surveys on prominent dietary issues.

Food Composition Measurements. The nutritional value of foods is determined by nutrient composition. DHHS efforts to assess nutrient composition are also conducted primarily through two FDA surveys. In one, the Food Label and Product Surveillance Study, a statistical sample of foods bearing nutrition labels is analyzed for many nutrients on a continuous basis to ensure that the label citation reflect actual food content. The other survey (Total Diet Study) measures the mineral, metal, pesticide and radionuclide content of various "average" diets that people might eat. This annual survey has recently been changed from an assessment of hypothetical diets to measurement of nutrients in 234 individual foods to permit monitoring of representative diets for people across the full span of ages.

Dietary Knowledge/Attitudes Assessment. Another component of nutrition monitoring relates the assessment of dietary knowledge and attitudes which affect people's nutritional choices. This information can provide important insight into emerging trends as well direction to program activities. Most of the DHHS activity in this respect is supported through the FDA's Annual Survey of Public Attitudes, Knowledge and Practices Relative to Food and Nutrition. This survey is a national probability sample of food purchasers and includes a component designed to assess public receptivity to food labeling policies.

Research to improve the methodology of these efforts is also

undertaken to a certain extent by each of these agencies, but particularly through the NIH. NIH is our lead agency for basic research in the development of methods to assess nutritional status, as well as epidemiologic research to define better the relationship between nutritional status and health, and the influence of nutrition programs on health. In fact, NIH is the major agency generating data which serve to provide basic knowledge on factors which determine nutritional status, as well as data which tell us how to assess nutritional status for the normal individual at various stages throughout the life span and in various disease states.

Through these efforts, we currently have the capability to assess nutritional status on several important dimensions--providing through NHANES an indication of the broad trends, and through the CDC surveillance system an early warning of developing problems.

From an evaluation of the data currently available, we cannot conclude that there is any decline in the nutritional status of the American people. For example, NHANES II data from 1976 to 1980 suggest no major nutritional status shifts from the NHANES I profile of 1971 to 1974. More specifically, the information we have indicates:

- o Obesity remains a major public health concern for 23 percent of the civilian population ages 20 to 74, compared with about 24 percent in the earlier study.
- o Serum cholesterol levels have declined somewhat among the general population. For example, the level for black males was 226 for NHANES I and 215 for NHANES II.
- o Iron deficiency anemia was a persistent problem for 6 percent of children 3-5 years, 4 percent of women 25-44 years, and 3 percent of elderly males.
- o Low serum albumin (less than 3.5 g/dl) was found in less than 1 percent of every population group in both the NHANES I and NHANES II.

- Using serum levels of Vitamin A as an indicator of the intake status, the NHANES II data suggest that about 5 percent of children ages 3 to 5 have low levels of Vitamin A versus about 4 percent in NHANES I. For Vitamin C, NHANES II data suggest that less than 1 percent of children, and 2 to 7 percent of adults had deficiencies. For adults, however, the results may be confounded by non-diet factors such as smoking which appears to affect the rate of metabolism of Vitamin C.

For more recent trends, specifically among low income groups, the data from CDC's Nutrition Surveillance System offer some insights. These data are based on a current volume of more than one million records per year from 32 participating States, including approximately 200,000 initial screening visits to WIC and other nutrition and health programs. Over a seven year period, several positive trends have been observed, including a modest decline in the prevalence of anemia, and of linear growth retardation (low height for age) and overweight (high weight for height). Specifically, the following were noted:

- For children under age 2, the prevalence of growth stunting declined by about 10 percent and the prevalence of overweight declined by about 11 percent during this seven year period.
- For children under age 2, the prevalence of anemia declined from approximately 9 percent to approximately 7 percent.
- All ethnic groups assessed shared in the decline.
- Since 1980, there has been a modest, but consistent, continuation of the downward trend for each of the ethnic groups, along each of the indices.

In considering these CDC data it is important to bear in mind certain limitations: 1) the data cannot be taken as representative of the general population--only of those low income groups targeted; and 2) the data are not received from all States so the information cannot be taken as fully inclusive. The surveillance system is based on voluntary participation by States and currently has only 32 States enrolled.

Therefore, as new States decide to enroll over time, the baseline of the enrollee pool may shift thus complicating trend interpretation.

Nonetheless, the information provided does offer important signals on prominent trends, and several steps are currently being taken to improve each of our DHHS monitoring systems. At the National Center for Health Statistics, steps include initiation of the Hispanic HANES targeted to an important low income group, and the upgrading of NCHS capability to expedite the processing of data for all its surveys. Efforts toward this goal at CDC include (1) the expansion of the number of States participating in CDC Nutrition Status Surveillance as additional States choose to join in the system, (2) enhancement of the data feedback to States and local health services including a listing of individual children at risk so that followup can be monitored, ranking of clinics by prevalence of normal nutritional indicators in order to target risk populations within States and ranking of clinics by the prevalence of probable measurement errors in order to identify needs for additional training and standardization, (3) assistance to States in the evaluation of their surveillance data findings and in studies targeted at better defining nutritional problems in specific high risk populations, and (4) evaluation of the surveillance data by comparisons with local assessment surveys and national survey data.

In summary, while our data for recent years suggest no major change--and possibly some improvement--in the nutritional status of most Americans, it is important that we not relax our vigilance in attending to the special needs of vulnerable groups. The activities I have reviewed indicate HHS' commitment to ensuring continued improvement in monitoring the health and nutritional status of Americans.

Thank you again for the opportunity to appear before the Committee. My colleagues and I would be pleased to answer questions.

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STATEMENT OF MILTON KOTELCHUCK, PH. D., M.P.H., ASSISTANT PROFESSOR OF SOCIAL MEDICINE AND HEALTH POLICY, HARVARD MEDICAL SCHOOL

Chairman Dole, Senators:

My name is Milton Kotelchuck. I am presently Assistant Professor of Social Medicine and Health Policy, Harvard Medical School and on staff of the Child Health Policy Program, Children's Hospital Medical Center, Boston. I had previously been the Assistant Commissioner of the Massachusetts Department of Public Health, where I had oversight responsibility for the Massachus , WIC Program, and more importantly for my testimony today, I have been the Research Director of the 1980 Massachusetts WIC Evaluation Study, which I testified about last year to this Subcommittee, and the Massachusetts WIC Follow-up Study which I will discuss this year.

I thank the Subcommittee for the opportunity to speak to you in support of the WIC Program. I believe that the WIC Program is a well targeted public health program, which can demonstrate improvements in the health status of nutritionally and financially at risk women and children. The WIC Program has been and should continue to be a major component of the federal initiative to improve the nutritional status of low income Americans in the 1980's. I would like, today, to review the scientific research related to WIC, summarize some of the key findings, and draw out some of it's implications for enhancing the effectiveness of the WIC Program.

1. <u>WIC is an Effective Public Health Nutrition Program</u>

There is a growing body of scientific literature which shows that WIC Program is effective in reaching the goals of its 1972

mandating legislation - "to prevent the occurrence of health problems and improve the health status of (nutritionally and financially needy) Women, Infants and Children".

Because of strong emphasis placed on the evaluation of the WIC Program from its inception, there is now at least seven different studies which have evaluated the prenatal component of WIC. A synopsis of their research design and principal findings, prepared by my colleague Dr. Eileen Kennedy, is included in an appendix.

These studies have used widely divergent methodologies and have examined widely scattered populations around the U.S. Without going into the specifics, the similarity of the findings is striking. Each study reports increases in birthweight for infants born to program participants, a decrease in the occurrence of low birthweight infants, and stronger benefits the longer the participation. All the WIC evaluations show positive benefits.

Two of these studies were conducted by my colleagues and myself in Massachusetts. Our first study, the 1980 Massachusetts WIC Evaluation Study, examined the birth outcomes, using birth certificate data, of all Massachusetts prenatal WIC participants who gave birth in 1978 (4,126 women) compared to a tightly matched sample of Massachusetts women who were not WIC participants. We found that: 1) The WIC Program appears to be a well targeted public health program; it disproportionately reaches those sub-populations known to be at high nutritional and financial risk for poor pregnancy outcomes, (eg, 29% of WIC participants are teenagers; 49% have never finished high school, etc.). 2) WIC participation is associated with improved pregnancy outcomes; in particular a 21% decrease in low birthweight (LBW) infants, a major decrease in neonatal mortality, and a 45% reduction in the number of women with inadequate or no prenatal care. 3) The benefits of WIC participation are strongest in women who participate in WIC for more than six months or two

trimesters of their pregnancy; this group showed increases in birthweight of over 100 gms., had 5 days longer gestations, and a 60% decrease in the incidence of LBW. 4) And finally the improved pregnancy outcomes associated with WIC participation are stronger in the higher risk subgroups; in particular, among young teenage and Hispanic populations.

We have just recently completed a second study of WIC - the Massachusetts WIC Follow-up Study. This new study tries to overcome a major methodological problem inherent in most WIC studies; namely, that since WIC participants are a self selected group, any observed benefits can not be absolutely attributed only to the WIC participation experience; characteristics unique to those women may be causing the observed benefits.

In our new study we compare the birth outcomes of two consecutive births of the same women; the first when she was not a WIC participant (because WIC programs did not yet exist in her area) and the second when she was a WIC participant. The difference between the two births, adjusting for the normal changes between any two births, should be the effect of WIC participation. Thus, in this study, each woman serves as her own control; self selection bias is removed.

We were able to study, via birth certificates, the birth outcomes of 1,309 women, who were having their second birth or later, who had all single births in Massachusetts and who had the described WIC participation history (plus comparable controls to estimate normal changes from one birth to another).

Again, without going into all the technical and statistical details of this study, the results were remarkably similar to our prior study. The results reveal that:

1) Participation in WIC is associated with a statistically significant reduction in the poorer outcomes of pregnancy; in particular with 23% fewer LBW and VLBW infants, fewer SGA infants, fewer premature

infants, and fewer infant deaths. 2) Participation in WIC is associated with a statistically significant 42% reduction in the number of women with inadequate or no prenatal care. 3) Increased duration of participation in the WIC Program (for greater than two trimesters) is associated with a statistically significant improvement in pregnancy outcomes; in particular, increased birthweight (110 gms) and decreased rates of SGA and LBW infants (47%). 4) Stratification of the WIC sample into high risk subpopulations reveals stronger benefits to women with short interconceptual periods, but not other additional high risk subpopulation benefits.

Overall the Massachusetts WIC Follow-up Study, with its improved methodology, supports the contention that WIC participation is positively associated with improved birth outcomes.

While I have discussed in some detail our most recent WIC studies from Massachusetts, it is important to note that they are part of a growing body of scientific evaluations of WIC, all showing similar findings. While any single WIC evaluation study can be criticized methodologically, one must recognize that with a series of studies, using different methodologies, each of whose results reinforce each other, there grows a scientific consensus indicating that prenatal participation in WIC is associated with improved pregnancy outcomes.

I would now like to follow-up on some of the specifics of the research findings that are worth further comment.

2. <u>WIC Reduces the Incidence of Low Birthweight Infants</u>.

L.B.W. status, as the committee undoubtedly knows, is perhaps the single strongest neonatal predictor of subsequent childhood morbidity. L.B.W. status is correlated with increased rates of mental retardation, developmental delays, handicaps and most childhood chronic conditions. In Massachusetts, 75% of all infants deaths, are LBW infants. These children make disproportionate usage of NICU, Title V programs, and Special Education program. Prevention of LBW status is a

major maternal and child health policy goal. Nutrition plays a significant role in the determination of LBW status.

The effects of WIC participation on reducing LBW status are striking. Our two Massachusetts studies show LBW reductions of 21% and 23% for the entire high risk WIC populations; and for participant of more than 2 trimesters, reductions of 60% and 47% are noted. These are major LBW reductions . I can not name any other public health intervention program which can actually demonstrate such a marked reduction of LBW status. WIC Program is a particularly effective health promotion and disease prevention program.

3. WIC may be Inhibiting Increases in the National Infant Mortality Rate (IMR)

There has been much attention in press recently over recent "rises" in IMR (esp. in Michigan). As a nation, we have recently been facing a very sever economic crisis, one large enough to increase the IM rates. Yet we have not really seen large increases. While some areas have experienced rises, the national IMR figures continue downward. We must ask, why have larger increases not been seen?

I believe the one factor in inhibiting large IMR increases is the existence and functioning of some federal public health programs which counter the economic pressures causing increased infant mortality. WIC is such a program. Whether WIC is strong enough itself to hold back trend, is unclear; but it functions effectively as a counter cyclic program to our recent economic crisis.

Unfortunately, one must also note, on the negative side, that WIC has little programmatic flexibility. It can not adjust it's enrollments to meet increasing community needs.

4. Early Participation in WIC is Important

WIC research studies show that maximum prenatal benefits are derived by women who enter the program early and participate for more than two trimesters of their pregnancy. This strongly suggests that active outreach efforts be made to enroll women into WIC early in their

pregnancy.

But, it is not only chance or self motivation that determines if a person enters WIC early or late, there are barriers and incentives to early participation. Larry Haddad, of the University of Massachusetts, analyzed some of the data from our first study and showed that the probabilities of women entering WIC in their first 3 months of pregnancy are significantly enhanced; if the WIC program site has been open a long time (ie, a mature program), if the program delivers its supplementation through retail stores (ie, high program visibility), and if a program site uses public service announcements (ie, enhanced public awareness). These are program barriers and can be addressed. Our own research notes that early joiners are more likely to be slightly better educated, older, and non-minority. More efforts are needed to reach the highest risk groups earlier.

In Massachusetts, only 33% of women participate for more than 6 months of their pregnancies; the average is 4.6 months. With a little effort, and relatively little extra cost, the potential impact of WIC as a public health program could be enhanced substantially. Perhaps some national incentives could be established to reward WIC Programs sites that have high rates of early participation.

5. WIC is Beneficial for and Popular with Low Income Americans

The WIC program is a popular program with nutritionally and financially needy women. WIC is generally perceived as a public health program, not a welfare program. Thus WIC participation is not perceived as a stigma; if anything, it is seen by many women as doing something positive for their future off-spring. Based on our Massachusetts data, once people enter WIC, they participate actively and fully; 91% of all potential WIC vouchers are redeemed. And the program is popular across the board for all categories of women - teenagers, minorities, immigrants - all participate fully at over 90% redemption rates. The high individual participation rates are

striking. The waiting lists rarely exist for unpopular programs.

Many of us are concerned about teenage mothers. In Massachusetts, in 1978, 37% of all teenage women, 17 years of age and younger who were living in WIC Program areas, were enrolled in WIC. And their redemptions were also above 90%. I know of no other voluntary public health program which can reach and appeal more to young teenage mothers than the WIC program. And once on WIC, the young women are readily enrolled in prenatal care (they start 3 weeks earlier and have 1.2 more visits) and have access to a social service network.

The fortuitous occurrence of the WIC program popularity and documented strong public health benefits angurs well for the effectiveness of WIC as a program in dealing with some of the nutritional needs of low income Americans in the 1980's.

6. WIC Should Not Focus Exclusively on Women and Infants

I do not believe that the existing WIC research suggests that WIC should be targetted exclusively on Women and Infants. While strong research support exists for maternal participation in WIC; very little research has been conducted on the childhood benefits - either to show benefits or to show no benefits.

As a researcher, I can state that it is very difficult to scientifically study the children's benefit from WIC participation. The developmental changes in children are too overwhelming for most researcher's static study designs. I believe, however, these difficulties will be overcome. The research on prenatal participation was also once seen as difficult, and yet this research has recently blossomed.

Research on the children's participation in WIC has just begin. Studies by Edozien, et al (1976), Heminidinger, (1982), and Hicks, et al (1982), each indicate some areas of physical or mental health benefits for childhood WIC participants. The present research base in this area is still inadequate.

To "scientifically" justify limiting the WIC Program solely to

Mothers and Infants would require a comparison of the long term health benefits from maternal supplementation vs. supplementation in 1 year olds or 4 year olds participants. This type of research has never been done. To use the prenatal participation research data to support a decision to cut children's benefits would be improper. Ease of research design has dictated the initial set of prenatal studies, not scientific judgement about the best age for programmatic intervention. Much more work on childhood nutritional needs and effective interventions are necessary before any arbitrary cut off age for WIC is established.

7. Equity of Access to WIC

National figures show only 25% of eligibles women, infants and children are WIC participants; long waiting lists abound. My own studies at a micro level in Massachusetts and the USDA figures at a macro level show large geographic variations in participation rates among eligible persons. These variations are strictly administrative. Presently, a person's accessibility to WIC is being determined by a program's geography and it's prior funding level history. There are no nutritional rationale for these large variations. Since I believe WIC is an important public health program, I believe equity of access to WIC should be a national goal.

I understand that the additional $100 million dollars allocated to WIC an part of the recently authorized job bill will be used to start equalizing state WIC funding levels; this is a good step. But many nutritionally needy women, infants and children will still be unserved, and local area inequalities will still remain. A more comprehensive approach would be to make WIC an entitlement program for all who met it's nutritional and financial requirements. If WIC is a successful intervention, what rationale is there for withholding it from any eligible persons. Waiting lists, of eligible persons for a program like this, should be a national disgrace. Mover, the

present program is not flexible to deal with the national and regional economic fluctuations. Areas needing more aid can not receive it under the present categorical arrangement. As long as WIC remains a categorical program, with it's yearly debate over the number of participants and funding ceilings, the issue of equity of access will not be addressed. The unequal WIC penetration presently seen in the detailed research studies should not be allowed to continue. Equity of access for all who need it should be our national goal.

Thank you for giving me the opportunity to present my views to you today.

APPENDIX

TABLE 1
Study Design*

University of North Carolina (1)	Prospective study, cohort design; pregnant women entering WIC were compared to women already on WIC to assess program effect. 9867 pregnant women included initially, 5417 revisited
Harvard (2)	Retrospective study, non-equivalent group design; 1328 women from four geographical areas and nine WIC and non-WIC sites included.
Massachusetts Department of Public Health, 1980 study(3)	Retrospective study, matched control design; all WIC women who gave birth in 1978 were matched to non-WIC control based on race, age, parity, maternal education and marital status. 4126 pairs included in the study
Massachusetts Department of Public Health, 1982 study(4)	Retrospective study, Follow-up to 1980 study. All WIC women who gave birth in 1978 and for whom the 1978 birth was parity two or greater were included; 1978 birth outcomes were compared to earlier non-WIC birth. 1306 pairs were included in the study.

NTS (5)	Retropsective study, non equivalent control group design and matched control group design both used to assess the effect of the Commodity Supplemental Food Program in Memphis.
University of Oklahoma Medical Center (6)	Prospective Study, Experimental Design. A total of 900 women included in the study; 450 high risk (300 WIC and 150 non-WIC) and 450 low risk (mainly non-WIC) followed throughout pregnancy.
Missouri Health Department(7)	Retrospective study, matched control design All WIC women giving birth in 1980 were matched to non-WIC women based on race, age, parity, marital status and maternal education; 6500 pairs included in the study.

* Listed in chronological order

Summary of Study Findings

Study	Mean WIC effect on birth weight
UNC (1)	+43 grams (+136 grams in women on WIC for greater than six months)
Harvard (2)	+122 grams
Massachusetts Dept. of Health 1980 Study (3)	+23 grams (+110 grams in women on WIC for greater than six months)
Massachusetts Dept. of Health 1982 Follow-up Study	+23.5 grams (+110 grams in women on WIC for greater than six months)
NTS (5)	+95 to +116 grams
University of Oklahoma (6)	+91 grams (+200 to 300 grams in "high risk" women)
Missouri Health Dept. (7)	positive effect on birth weight

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STATEMENT OF MOST REVEREND JOSEPH M. SULLIVAN, AUXILIARY BISHOP OF BROOKLYN, REPRESENTING THE NATIONAL CONFERENCE OF CATHOLIC CHARITIES

Mr. Chairman, I am Bishop Joseph M. Sullivan of the Catholic Diocese of Brooklyn. Until recently I was Executive Director of Catholic Charities for Brooklyn and Queens, New York. I am a member of the Board of Directors of the National Conference of Catholic Charities, for whom I testify today. NCCC is the largest network of voluntary human service organizations in our country. I regret that I was not able to testify earlier this year on your commodity distribution proposal, but I am happy that our Conference was able to present a statement on that bill, and that your proposal is moving forward.

I do not testify today as a nutritional specialist, but I do testify to growing hunger lines resulting both from our recent recession and from Federal policies of the past two years. I want to present you with some illustrations of the unnecessary human suffering around our country - suffering which could be greatly alleviated by changes in Charities believe are germane to an examination of the proper Federal policy on hunger and nutrition in our country today.

First, biblical tradition clearly teaches that the community has a responsibility to feed the hungry. In fact, Jesus made the feeding of the hungry one of the criteria by which we would be judged. It is out of our conviction about this teaching that we are here today. We appreciate this invitation to share with you our concern for the poor and the need for a sound Federal nutritional policy.

All the studies of the tax and benefit changes of the past two years demonstrate strikingly that in the midst of economic difficulties striking hardest at the poor, the changes in our laws have favored the rich and greatly harmed the poor. Our own view is that the current use of the "safety net" concept is a shibboleth. The plain fact is that the means tested programs - those having the most impact on the poorest -

are the programs which have received the largest cuts. The phrase "the deserving poor" is divisive and demeaning.

It is very difficult for service agencies to provide statistically valid data on the impact of the past two years of cuts in social programs. We can judge by our own experiences, and we depend on community councils and research agencies to do studies. Unfortunately, service agencies are constrained to cut their own research programs to meet more immediate and basic human needs. But the fact that, despite sizeable cuts, the AFDC population is again growing does tell us something. And common sense suggests that several billions of dollars of cuts in the food or nutritionally oriented programs are going to change the diets of many citizens. The urgency which Congress displayed a week ago in appropriating $100 million to help meet the food and shelter needs of the homeless reflects this awareness. Your own leadership, Mr. Chairman, in urging the Department of Agriculture to release additional surplus foods is corroborative.

Our agencies report that requests for emergency food and shelter are up from 100% to 400% over two years ago. In city after city the "street people" are now also "street families."

In New York City there were more than 36,000 homeless in 1982. Through the New York City Partnership for the Homeless, a coalition of churches and synagogues, some 50 parishes and synagogues, have voluntarily, with State and city assistance, opened their doors to provide shelter and food for the homeless. New York City has increased its efforts with State aid from $7 million in 1981 to $50 million in 1982. The Food and Hunger Hot Line in New York City reports an 82% increase in the past year in requests for food assistance in New York City. In 1982, 175,000 people have lost food stamp eligibility.

Catholic Charities in Denver reports 800 emergency beds in shelters, 512 new in 1982, a 150% increase over the previous year. That agency estimates an additional 500 beds are needed. A parish there has just converted a whole school into a shelter program, with dormitories,

family rooms, showers, a cafeteria and a commons room. In order to keep the facility clean, those who use it - adults and children - have to vacate it during the day, and spend their time on the streets.

A daily meal program is supported by the Catholic parishes in Baltimore. Twenty months ago they would feed 150 people. Presently they are feeding between 500-600 people daily. The room can only accommodate 45 people at a time, so people have to eat quickly to make room for those waiting.

Our Buffalo agency reports that in the year ending in November, 1982, they had received 327,000 requests for emergency food. The previous year they had 160,000 requests.

Several weeks ago one of our Midwest agencies reported that an official from the local Social Security office had approached their food bank asking for the agency to certify as to the dollar amount of emergency food stuffs given to a Supplementary Security Income recipient. The responsibility of an agency is to make a judgment about the real needs of people for nutrition. To be placed in the position of attributing a dollar amount to the food assistance given to needy SSI recipients is, in our opinion, to improperly jeopardize their entitlement to other essential benefits. Though I know that SSI eligibility is not within the jurisdiction of the Agriculture Committee, your influence to amend SSI to reflect the same intention you stated in your commodity distribution bill would be helpful - namely, that such emergency assistance is not to be counted as income for any other benefit program.

One could go on with such stories. You have heard them before.

As a Catholic bishop, I have listened carefully to the suggestion that the voluntary sector, and the churches in particular, can and should take up the slack caused by the budget cuts. This suggestion, that private charity can increase sufficiently to make key government programs unnecessary, ignores both history and reality. Those programs and services now provided by voluntary agencies for the poor are made possible through contracts with government. These contracts have been

reduced as a result of current fiscal policies. The Urban Institute reports that non-profit, private organizations stand to loose $33 billion in Federal funds over the next three years. The loss of services is, however, even more extensive since State and local governmental matching funds are likely to be reduced or terminated. Voluntary monies have been maximized through cooperation with public funded programs. They neither can replace essential government funds and, in fact, will have a reduced impact when government funds are withdrawn.

It is clearly a Federal responsibility to meet income needs. The voluntary sector and the States do not have, and cannot command, the resources necessary to meet these needs. Only the Federal government can provide for the equitable distribution of this country's goods. Absent an adequate income maintenance program, food stamps, food commodities distribution, and luncheon programs for children and seniors are essential to assure good nutrition.

Meeting the nutritional needs of our poor is fulfilling a basic human right. We must be clear about the proper role of the government in protecting this right. The Catholic Church has a long tradition of social teaching on this subject, and our concern and interest in Federal domestic food policies flows from that tradition. The Catholic bishops in this country, and around the world, have called the right to eat a fundamental right, one essential to human dignity and to the right to life itself. When we talk about the implications for public policy, we are not speaking of feeding people out of our largess or as a matter of privilege. Rather, it is a matter of social justice and basic human rights - rights from which entitlements flow.

The development of Federal food programs such as food stamps, WIC, school breakfast and lunch, and child care food services, marked the commitment of this nation to ensure adequate nutrition for all our people. These various programs have literally meant the difference between an adequate diet and retarded physical and mental development for many. In some instances they have even meant the difference between

life and death. There is no area where nutrition policy has a more dramatic impact than on the lives of the unborn. We are deeply distressed by the findings of the Food Research and Action Center that infant mortality rates have risen statewide in eight States and in 34 urban and 2 rural areas in a survey covering 37 States.

In this testimony, my concerns have been threefold: To tell you that from the point of view of poor people, things are getting worse out there, not better. What is making it worse, in part, is a Federal government shrinking from its responsibility to protect the poor, to assure them shelter, nutrition, health care. Secondly, to make the point that people are entitled to this assistance by the nature of their personhood, their very human dignity and right. Thirdly, that it is a Federal responsibility, not solely a responsibility of the voluntary sector or the States.

Obviously we have to reverse our course. It is a matter of more Federal dollars for the poor. I understand, Senator Dole, that you recently stated that so far as you were concerned, there would be no more cuts in the food stamp program for budgetary reasons. I am heartened by that, of course. But it is not enough. We must rebuild our basic income and food and related nutritional program so that the heaviest burden from our economic troubles does not fall any longer on those who can least bear it. The church has increasingly insisted that it must have as its preference a priority for the poor. It is our contention that justice demands that the Federal government make the poor its priority.

STATEMENT OF
ROBERT GREENSTEIN
DIRECTOR, CENTER ON BUDGET AND POLICY PRIORITIES

I very much appreciate the opportunity to appear before the Subcommittee today. As you know, I am the director of the Center on Budget and Policy Priorities, a research and analysis organization supported by private foundations. I formerly served as Administrator of the Food and Nutrition Service during the Carter Administration.

I would like to concentrate today on reviewing the situation that now faces us regarding the federal food assistance programs. The food stamp program provides a good place to start.

The Food Stamp Cuts of the Past Two Years

In assessing the situation before us today, it is important to examine carefully the food stamp changes in the 1981 and 1982 Reconciliation Acts. The most frequently cited provision in the 1981 act was the elimination of households with incomes above 130% of the poverty line. While this change did not affect the poorest households, the emphasis on the provision is somewhat misplaced. The official CBO estimates show that the 130% of poverty income limit accounted for only about 5% of the food stamp savings achieved by the 1981 and 1982 acts. Even if the elimination of strikers and many students are added in, the total still falls below 10% of the total cuts.

The various changes to stiffen fraud penalties, tighten collection of overpayments, and similar provisions also account for only about 5%-10% of the savings.

By contrast, the substantial majority of the cuts were achieved by lowering benefits for families with gross incomes below the poverty line. This was done in a variety of ways -- delaying and reducing annual cost-of-food adjustments, cutting

benefits for the working poor, reducing standard utility allowances, freezing deductions despite rising heating costs, reducing benefits through changes in rounding rules, etc. While some of these provisions did not, individually, have that large an impact on needy households, the cumulative effect of these numerous budget reduction changes has been significant and is clearly now being felt.

Moreover, the impact of these changes on poor households has been intensified by the fact that so many food stamp families were living on the margin even before the cuts were made. A FNS publication issued this January says it best. The FNS document presents the following results of FNS' most recent data on food stamp households -- data from August 1981, just before the budget cuts hit.

- The average gross income of food stamp households is $349 a month (the annual equivalent of $4,180).
- About half of all food stamp households have gross incomes of less than $300 per month (the annual equivalent of $3,600).
- 76 percent of the households have no cash assets.
- Most participants are children, elderly or disabled persons, or single parent heads of households.

Detailed documents FNS prepares for the Appropriations committees also include one other striking fact -- that the combined effect of the 1977, 1980, and 1981 acts has been to reduce the number of persons eligible for food stamps by nearly 8 million persons.

Child Nutrition

The budget cuts have also had marked impacts on low income children. USDA's data shows that the number of children receiving school lunches has dropped by more than 3 million as a result of the cuts. Of particular concern is the fact that 35%

of this decline has occurred in the free and reduced price lunch categories. Over 1 million fewer children are now receiving free or reduced-price lunches.

In the school breakfast program, the impacts have been sharper. The overall decline in the number of children receiving breakfasts has been larger than the decline in the lunch program. And nearly 70% of the decline in the breakfast program has occurred in the free and reduced-price categories.

Finally, half a million fewer children now receive meals through the summer food program, which is designed to continue the school lunch and breakfast programs in low income areas in summer months.

These declines should be of particular concern -- especially given the new research findings that children participating in the lunch and breakfast programs have significantly improved intakes of those nutrients for which there is clinical evidence of deficiencies among school-age children (and particularly among low income children).

WIC

The recently enacted emergency jobs bill provided $100 million for WIC. These funds were badly needed.

In early March, we conducted a survey of states to determine what was happening in their WIC programs. The survey found that prior to enactment of the jobs bill, states across the country were reducing WIC caseloads, and that thousands of eligible mothers and children were being turned away solely because there were no WIC funds available to serve them. Louisiana and Iowa were enrolling no new participants at all -- not even pregnant women or infants with anemia or other serious health problems. Kansas was not enrolling children over the first birthday, even

if they had nutritionally-related medical problems. Most other states had imposed restrictions of some sort. Only the $100 million in the jobs bill alleviated these programs -- and only until September 30.

WIC currently serves only a fraction of those eligible for the program. Several hundred counties across the country still have no WIC program at all. Most WIC clinics have had long waiting lists.

The WIC program now faces a potential crisis at the end of the fiscal year. With the funds from the jobs bill taken into account, CBO estimates that the program will be serving 2.75 million persons at the end of the year (about one-third of all eligibles). However, the Administration has requested funds to serve just 2.15 million persons in FY 1984. If this funding level is accepted, 600,000 low income women, infants and children at nutritional risk will have to be removed from the program next year.

To maintain the program at 2.75 million participants and allow no further participation increases at all would, according to CBO, require $1.35 billion for WIC next year -- nearly $300 million more than the Administration has requested.

The Impacts Across the Country

As the growing lines at soup kitchens and food pantries indicate, there is a real problem today of families having difficulty getting enough to eat. As one who has worked on and helped fashion some of the budget-cutting provisions of the last two years, I would note that the problems out there appear to be significantly greater than I had anticipated. Frankly, I believe that I, like many others here in Washington, underestimated the problem and underestimated the need.

In my judgment, the major problems we are now witnessing in so many parts of the country are due to the unfortunate combination of three sets of events -- the major cuts in food programs, cuts in other income-related programs for low income persons, and the recession.

These other factors are important, because food stamps by themselves provide few families with an adequate diet. USDA's most recent National Household Food Consumption Survey, conducted in the late 1970's, found that only 9% of all families whose food expenditures equalled the cost of the full food stamp allotment received the Recommended Daily Allowances for the basic nutrients. 91% failed to obtain the RDAs.

This does not mean, I should add, that 91% of food stamp households were failing to get an adequate diet. What the survey also found was that in the 1970's a majority of food stamp households were digging deeper into their small incomes to come up with additional amounts to spend on food -- amounts above and beyond the cost of the thrifty food plan. This was necessary for these families to avoid highly inadequate diets.

Today, the cuts in other needs-based programs and the recession have substantially reduced the ability of low income families to spend these additional amounts on food. This has occurred at the same time that the food stamp cuts have trimmed the amount of stamps they receive. The combined effect has caused real hardship.

Of particular note are the reductions in AFDC. HHS noted last year that average AFDC benefits for families with no other income fell a staggering 29.4% (in real terms) from 1969 to 1981 -- even before the recent cuts were implemented. The additional reductions for AFDC working families made in 1981 were

substantial. In back-up material provided to Congress in 1981, HHS estimated that after the 1981 cuts, AFDC mothers with three children who earn $5,000 a year (or about 55% of the poverty line) would lose all AFDC benefits after their fourth month on the job in 36 states.* In 13 states, HHS estimated that a mother with three children with income as low as $3,000 a year would lose benefits after the fourth month on the job. While there may be somewhat fewer states now where the income limits are this low, this picture generally holds.

Impacts from cuts in other programs have also been substantial. For example, rents have been raised for the 3.5 million families in subsidized housing. And of course many families terminated from AFDC have lost Medicaid.

Finally, natural gas prices have been rising sharply -- 20%-25% in many areas this winter. Natural gas is the predominant form of heating used by low income families -- nearly 60% of low income families heat with natural gas. Although fuel oil prices may drop some, only about 17% of low income households heat with fuel oil.

Means-Tested Programs

These reductions in benefits and increases in rent and utility bills have a direct impact on the amount of funds that families have available to purchase food.

Overall, means-tested program have taken a beating the last few years. Appropriations for all means-tested programs totaled $101 billion in FY 1981. In FY 1983, appropriations for these programs (prior to the emergency jobs bill) totaled $84 billion

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*These income limits apply to families without child care costs. For families who incur child care costs, the income limits are somewhat higher.

-- a drop of 27% in constant dollars. Even if subsidized housing the comparison (due to possible distorting effects that comparisons of funding for these programs may have), the decline for all other means-tested programs is still 16% in constant dollars. No other major part of the federal budget has been cut so greatly.

Contrary to the often-heard claim that we have not really cut programs but only restrained their rate of growth, the overall numbers for means-tested programs are down. It is in the larger, non-means-tested programs where the continued growth has been (although most of the growth in those programs is due to inflation).

Where Do We Go From Here?

We now face major questions regarding the FY 1984 budget. The Administration has proposed additional cuts in food programs.

The Administration has stated that these proposals will produce little benefit reduction, and that the savings will occur primarily by reducing "misexpenditures." According to USDA, "80 percent of the savings will come about by reducing misexpenditures rather than recipients' benefits."

Unfortunately, our analysis shows that these figures are highly inaccurate. I am not alone in saying this. The Congressional Research Service has looked at the Administration's figures and found them to be incorrect. The Congressional Budget Office has examined these figures and found them to be incorrect.

CBO, CRS, and our Center all agree that very little of the savings under the Administration's proposals actually comes from reducing error. Most of the savings would come from benefit cuts and from cost-shifting to states. And the error reductions resulting from these proposals would be small -- much less than

the Administration is trying to claim. In fact, our analysis indicates that less than 10% of the savings comes from error reduction. At the same time, hundreds of millions of dollars in new benefit cuts would occur.

The Administration has used several devices -- and made a number of analytical errors -- in coming up with its mistaken estimates. For example, the Administration has counted benefit cuts of only $32 million from the proposed 6-month COLA delay. It is true that this proposal saves only $32 million in FY 1984, due to the fact that food prices are barely rising now. However, the Administration and CBO project benefit cuts of $300-$400 million a year in FY 1985 and all succeeding years from the proposal. These reductions are not included in the Administration's 80% figure.

Secondly, the Administration counts the $432 million it proposes to save from billing states for errors above 3% as a reduction in error. Yet FNS' own back-up analysis -- as well as CBO's -- shows this is not the case. Both CBO and FNS project that this proposal will result in very little additional reduction in errors. This is because last year's error rate provision (the Dole provision requiring states to lower error rates to 5% or face penalties) is already expected to spur states to undertake those error reduction efforts that can be mounted without excessive administrative costs. The CBO analysis (and USDA's projections as well) clearly show that the savings from the new Administration proposal result largely from increased sanctions on states, not from reductions in errors.

The effect of this proposal is thus not to reduce food stamp costs so much as to shift costs to state governments. Coming at a time when states face their own budget crises, this is likely

to result in state actions to come up with the funds by cutting programs such as Medicaid, AFDC, and General Assistance. The end result in many states would be further reductions in living standards for low income families.

Finally, and most important, are the proposals to standardize deductions. It is here that the USDA estimates are most inaccurate.

First, the proposal to change the earned income deduction neither reduces errors nor simplifies the program. Under the current system, no actual work expenses have to be verified. Instead, gross earnings are simply multiplied by 18%. Under the new proposal, the 18% deduction would be replaced with a flat deduction of $75 a month for full-time workers, and a pro-rated amount for part-time workers. The new proposal is, if anything, more complex and error-prone than the current system -- because caseworkers would have to determine and verify the number of hours of employment to know how to pro-rate the $75.

USDA officials I have questioned have acknowledged that this proposal represents no simplification and will result in no error reduction. What it will do, however, is to reduce benefits. The proposal will cut benefits for most of the 1.4 million working poor families on food stamps. A household with earnings equal to the poverty line would lose $230 a year in food stamps. A family with a bread-winner working 40 hours a week at the minimum wage (which is well below the poverty line) would lose over $100 a year in stamps.

The other change in deductions proposed by the Administration regards the "standardization" of the shelter deduction. The from error reduction -- and that the error rate would drop 2 percentage points if this proposal is adopted.

I have spent a considerable amount of time discussing with USDA officials how these estimates were derived. Unfortunately, the derivation of these estimates represents some of the most unsatisfactory government work I have seen in 10 years. Every independent analyst I have spoken with -- at institutions such as the Congressional Research Service and CBO -- has been stunned by the extensive analytical errors that mark USDA's work on this issue.

USDA ignored historical data on errors caused by the shelter deduction, and essentially manufactured the new estimates based on little evidence. There is evidence available, however, and it indicates that USDA has exaggerated the error reduction this proposal would produce by about 300%.

Indeed, our analysis suggests that the error reduction from this proposal would lower error rates by only about one-half of one percent. The one state that has the computer data base to study this matter has found the proposal would reduce its error rate by 0.4%.

If most of the savings in this area is not caused by error reduction, where does it come from? The answer, unfortunately, is from deep benefit cuts. Under the Administration proposal, 3-4 million households with high shelter costs would lose benefits. About 2 million of these households would each lose close to $250 a year in food stamps.

Those whose benefits would be cut most are those who now receive the largest shelter deductions. The higher a family's shelter bills are in proportion to its income, the more its benefits would be reduced. Overall, those families would lose more than half a billion dollars a year in benefits (some families with lower shelter costs would gain benefits -- but the

net result would still be a several hundred million dollar a year benefit reduction).

Hardest hit would be several hundred thousand elderly and disabled households who currently receive the largest shelter deductions. Some of the elderly and disabled would lose $400-$500 a year in food stamps.

The impacts would be greatest in northern parts of the country whose fuel bills are highest. However, every region would feel a substantial impact. Even in the South, nearly one of every six households would lose close to $250 a year in benefits.

The same type of problems attend to the other Administration proposals as well. The proposal to "standardize" food stamp benefits for AFDC households would result in benefit losses for the poorest AFDC households. The proposal to fiddle once more with the household definition -- for the third time in three years -- would penalize unrelated families who share living quarters to save on rent but are otherwise economically separate. The proposal for mandatory workfare would, according to CBO, add so much to state administrative costs that these costs would virtually cancel out any savings to the federal government. It also ignores the fact that, as CBO recently reported, "There is no firm evidence yet available on whether savings exceed costs for workfare and for many types of job search. Programs initiated in the 1970's were often not cost-effective."

When the Administration's proposals are scrutinized carefully, there is little to recommend them. The reality is that we have gone about as far as we can go in designing cuts in these programs. We do need to get error rates down -- but this is now principally a function of improved management, not of more legislation -- and especially not of legislation that purports to reduce errors but actually slices benefits to recipients and shifts costs to states.

STATEMENT OF JUDY FRICK, COORDINATOR, WICHITA
JUNIOR LEAGUE'S CHILD WATCH PROJECT AND
PRESIDENT, KANSAS ACTION FOR CHILDREN

Mr. Chairman, members of the Subcommittee, I am Judy Frick, Coordinator of Wichita Junior League's Child Watch project and President of Kansas Action for Children. I appreciate the opportunity to testify today on behalf of the Children's Defense Fund's Child Watch projects. I am here today representing over 1,000 Child Watch volunteers from 39 states and the District of Columbia. Our volunteers include college students, men and women associated with civic, religious and fraternal groups, businessmen, and retired persons. We come from different racial, religious and economic backgrounds, yet we all share a common concern for our nation's most important asset: our children.

The Children's Defense Fund (CDF) is a national public charity created to provide a long range and systematic voice on behalf of the nation's children through work in four program areas: education, child health, child welfare and child care and family support systems.

CDF launched Child Watch early in 1982 in collaboration with the Association of Junior Leagues. Child Watch involves citizens in monitoring the impact of federal budget and policy changes in communities across the nation. Information is gathered through interviews with program administrators, advocates, parents, and service providers. Participants share their findings with elected officials, civic and religious groups, and the general public. Child Watch encompasses four program areas of critical importance to low-income and vulnerable children: child health, child care, Aid to Families with Dependent Children, and child welfare, including foster care and adoption.

Each Child Watch project is a separate, independent effort and is responsible for developing its own final report and follow-up activities. In 1982, nine national voluntary organizations in addition to the Association of Junior Leagues collaborated with CDF on Child Watch. These organizations included the National Council of Negro Woman, Church Women United, YWCA, Southern Rural Women's Network, National Association for the Education of Young Children, Lutheran Church in America, League of United Latin American Citizens, Council of Jewish Federations, and the United Methodist Church. Through the efforts of local affiliates of these national organizations, through several statewide Child Watch projects, and through a number of independent projects, Child Watch volunteers conducted approximately 2,200 interviews. Because of the success of these projects and the high level of interest among Child Watch volunteers, CDF decided to continue Child Watch through 1983 and currently has projects in about 100 communities.

In the first year of Child Watch approximately thirty individual Child Watch projects and several statewide projects shared their findings with the Children's Defense Fund. Virtually every report documented significant increases in requests for emergency services--for cash assistance, food, clothing, and utilities. This increase in requests for the most basic elements of survival was a consistent theme throughout all of the Child Watch reports. Whether the volunteers looked at health, child welfare, child care or AFDC, they found that the struggle for survival has not only intensified as a result of the budget cuts and economic downturn, but also has increasingly affected families and children, as indicated by the following examples.

- 77% of the agencies interviewed by Wilmington's AFDC Child Watch team are experiencing increases in demand for help in meeting basic needs.

- The Coalition of Community Ministries in Montgomery County, Maryland, a coalition of churches providing emergency help, assisted 240 persons in 1979; 390 in 1980; 500 in 1981; and 521 families in January-April of 1982.

- Johnson County, Kansas, Emergency Assistance reported that requests in the past year increased by 99% while dollars available increased by 9%.

- In Bellingham, Washington, agencies such as the Salvation Army, Project Hope, Project Concern and the Food Bank reported that requests for assistance in meeting basic needs such as food, clothing, housing and medical/dental care have at least doubled in the last year, due both to high unemployment and loss or reduction of AFDC coverage.

Nowhere is the struggle for survival more acute than in relation to food. Our Child Watch reports paint a dismal picture of families exhausting their resources and turning in despair to community agencies that are often poorly staffed, inadequately funded and generally unable to meet their needs. This picture extends from coast to coast, from areas with high unemployment to some of the country's most affluent communities.

- Hartford Connecticut's Child Watch project reported an increase from 200 families/month to 500 families/month who are using a food bank.

- Casa Bianca, a Spanish Social Service Center serving Meriden, Connecticut, reported a doubling of food demands.

- In Birmingham, Alabama, St. Andrew's Parish soup kitchens served 1,200 children under 16 in 1981, 2,500 children in 1982 and anticipate serving 5,000 children in 1983.

- In Wichita, Kansas, the United Methodist Urban Ministries reported 385 requests for emergency food services in January, 1982, and 650 requests in March. The Community Food Bank served 1,600 families in December, 1982, compared with 195 families in December, 1981.

- Focus Hope, a private commodity supplemental feeding program in Detroit, Michigan serving young mothers, children and pregnant women, experienced an increase of 10,000 in the last year.

- All eight New Jersey Counties participating in Child Watch reported an increased demand for food. In Bergen County the Center for Food Action fed 25 people a week in 1978, as compared with 140-150 a week currently. In Newark thousands are being served by a network of food pantries and soup kitchens, and hunger was reported in the rural counties of Cape May and Hunterdon.

- Metropolitan Ministries in Tampa, Florida, had a 40-50% increase since 1981 in food requests from families with children.

Scattered through the Child Watch findings are references to the difficult choices families must make. One of the most poignant phrases appearing in the Child Watch reports is "Heat or Eat", three words which cannot begin to convey the agony of thousands of families as they decide whether to pay their utility bills or buy food for their children. For Want of a Nail, the Child Watch report of the Massachusetts Advocacy Center, quotes the director of a private social agency, "People have had to cut out things like a telephone and even electricity in order to be able to eat". The director of the Martin Luther King Urban Center in Kansas City stated that his clients "have to choose whether to pay their bills or buy food. They cannot choose child care." In Montgomery County, Maryland, a woman with a four year old child who lost her child care subsidy had to choose between food and child care. Without child care she had to give up her job and rely on AFDC. In Massachusetts and in other communities, Child Watch volunteers have been told of families who are requesting or contemplating placement of their children in foster care because they cannot afford to take care of them.

The difficulty experienced by low-income families in stretching their budgets to provide enough food was documented in the Wilmington Child Watch report and also in a study conducted by Dr. Isabel Woloch at Rutgers University School of Social Work. In

Wilmington, two food banks have data indicating that approximately 50% of the families receiving their emergency food packages are AFDC recipients. In the Rutgers study of 130 families whose AFDC benefits had been terminated, 39.4% of the respondents said that since going off welfare there have been times that their families haven't had enough to eat. Eighty percent (80%) of these individuals said that this happens more often now than when they were receiving AFDC.

The consequences of poor nutrition were mentioned in several Child Watch reports.

- In Bergen County, New Jersey, it was noted that one of the most serious health problems among children and pregnant women served in the clinics is poor nutrition. In Mercer County, New Jersey, hospitals reported many more babies with low birth weights, which they attribute in part to cuts in medical aid and nutritional deficits.
- In Tampa, Florida, the Medical Director of a community health center reported that "due to malnutrition, anemia in children and women is very prevalent".
- The Wilmington report expressed concern about children experiencing "failure to thrive", caused by nutritional and/or environmental deficits.
- The Des Moines Child Watch project reported estimates that nearly 50% of the Indo-Chinese children are developing anemia due to undernourishment.

A number of Child Watch reports included information about the Special Supplemental Food Program for Women, Infants and Children (WIC). In many communities this valuable and cost effective program has become less available to needy mothers and children.

- In Arkansas, children between the ages of 1-5 are being phased out because of increases in eligibility for other priorities.
- In Wilmington, Delaware, WIC only sees mothers and children under the age of two who meet certain criteria, and the program serves 17% of the persons eligible for the program.

- In Indiana, 43 counties out of 92 have no WIC program. Of these 45 counties, 25 have not a single food pantry. In Monroe County, it is estimated that 2,800 residents are eligible for WIC, but funding is available for only 1,000.

- In Tampa, 11,800 County residents are eligible for WIC, yet only 4,000 are being served. There is a waiting list of 366. WIC is no longer available for breast feeding women or for children between 6-12 months. Outreach and publicity about WIC have been curtailed to limit the caseloads.

- In Kansas, as of March, 1983, the WIC waiting list included 399 women, 495 infants and 1,633 children. An adequate diet is no longer considered a risk factor for children in Wichita, and the only children over two being served are those with special medical problems.

- In Essex County, New Jersey, WIC has been unable to serve the mothers and children in need. In October, 1982, 1,200 cases in Newark were put on a waiting list and the load was frozen at 2,600. The Plainfield, New Jersey, WIC office estimated that 800 pregnant women and children need the service but cannot be enrolled.

Child Watch volunteers reported on the impact of cuts in the Child Care Food Program. These cuts, coming at the same time as cuts in the Title XX Social Services Block Grant have played a significant role in the erosion of child care services. Furthermore, they have diminished one of the main sources of nutritional support for low-income children at the same time that their families have been beset by reductions in AFDC, food stamps, and Medicaid.

The Massachusetts Advocacy Center's Child Watch project documented the effects of the Child Care Food Program cuts. Overall, child care programs across the state report that they have had to curtail the amount and variety of food served. They spend more time and effort on menu planning and travel among supermarkets having sales in order to stay within their budget.

- A Worcester center which serves 130 children from predominantly single-parent and low-income families which is entirely dependent on public funds, should have dropped

ten children from the program, but has "held them on" so far, according to the director. The program has lost $19,000 in transportation money and between $800 and $900 per month in Child Care Food support. For a while, the director of the center was personally picking up one child every day whose mother could not get him to the center any other way, but these makeshift arrangements cannot continue indefinitely.

- The Sarah Haskin's Community Center in North Adams had to drop one snack a day. The center which serves a large number of single-and teenage parent families also lost $10,000 in transportation funds and two children couldn't afford transportation costs. Two teachers plus the center's educational coordinator were laid off.

- The University of Massachusetts/Boston Harbor Campus Day Care Center which serves low-income and single parents attending school, lost between $300 and $500 per month in CCFP money.

- The Early Childhood Development Center in Pittsfield had its CCFP reimbursement cut from $.57 to $.28 per child per snack and from $1.90 to $.69 per child per meal.

- The Edward Street Day Care Center in Worcester reported that a 30% reduction in CCFP funds was absorbed, but only because the Center has a large endowment fund which the Director acknowledges "put us in a much stronger position than many centers."

- St. Agnes Guild Day Care Center has suffered 25-33% cut in CCFP funding. The Center had 42 children enrolled in work related Department of Social Services slots in October, 1981, but only 20 were left in July 1982.

- The Children's Center in Woburn, which serves primarily single-parent and low-income families, some with "poor parenting skills" and some children with special needs, no longer provides lunch because of CCFP program cuts and restrictions. Children now bring their own from home.

Other Child Watch projects report similar findings:

- Parents interviewed by Tampa's Child Watch volunteers report that for the first time their children are coming home hungry. Child care providers in Tampa have experienced increasing difficulty during the last six months in providing adequate nutrition for the children in their programs.

- In October, 1980, a Rochester, Minnesota center received $2,783 monthly from CCFP. By April, 1982, it was down to $1,067. With the loss of equipment funds, the Director worries that they will not be able to replace worn out equipment.

- In Minneapolis, a center reports a 60% cut in CCFP and a 30% cut in Title XX funds. The Director says that "the

quality and expertise of the cooks and staff in the kitchen have been reduced. We can't afford the supplies and equipment we need. Because we can't pay competitive wages, talented people are leaving the field."

- A St. Paul Center reports a 50% cut in CCFP and a significant Title XX loss. The program faces an $8,000 deficit.
- In Monmouth County, New Jersey, one center cited a 36% reduction; another a 50% reduction in food funds.
- In Wilmington, Delaware, centers have lost between 30-50% of their funding for food.

These findings, all gathered locally by Child Watch volunteers, paint a grim picture of the difficulties being faced by children and families across the country. The trends are unmistakable and alarming:

- Increasing numbers of children are going hungry.
- Large numbers of families are having to make do without the basic necessities of adequate health care, food, clothing and shelter.
- In the long run, increases in WIC waiting lists will cost more, not less, federal, state and local dollars.
- Cuts in non-food programs (AFDC, Energy Assistance, Title XX Social Services Block Grant, housing subsidies) combined with cuts in food stamps, WIC, and CCFP are pushing families into crisis.

The words of one interviewee from my home state of Kansas summarizes the current situation:

> "Cuts in the areas of food stamps, school and day care meals, public housing, and emergency assistance... combined with reductions in the number of families eligible for AFDC and the high unemployment rate, all add up to more crisis-for families...The private sector cannot meet all of the needs created by these reductions...It will require the joint efforts of all segments of the local community, schools, voluntary agencies, churches, business, government and involved citizens. I don't believe we will know the entire impact of the budget cuts for several years. But I do know if we wait to find out, it will be too late for thousands of children and families in the state of Kansas."

Mr. Chairman, we welcome your committee's concern.

STATEMENT OF INTERRELIGIOUS TASKFORCE ON U.S. FOOD POLICY

We commend the Subcommittee for holding these hearings on the nutritional status of low-income people in this country, and appreciate the opportunity to include our statement in the hearings record.

The Interreligious Taskforce on US Food Policy is a coalition of over two dozen Protestant, Jewish, Roman Catholic, and ecumenical agencies which work together for justice for the world's poor and hungry people. While the Taskforce speaks only for itself and not for the religious bodies that participate in its work, Taskforce testimony and statements are generally consistent with the public policy recommendations adopted by those bodies.

We are all familiar with the stories about the growing number of people unable to secure an adequate diet for themselves and their families. Religious groups historically have been directly involving in helping those in need of food and shelter. While churches and synagogues are not as well qualified as health professionals to evaluate the nutritional status of people, nonetheless congregational reports on the number and condition of hungry people being served and those turned away due to insufficient resources indicate that the nation's nutritional well-being is deteriorating.

Churches and synagogues across the country report a dramatic increase—often 200–300 percent—in the demand for food assistance. Here are some examples of that increase:

The Florida Coalition Against Hunger reported that requests for food have gone from 15–20 people a day to 60 people a day in a matter of months.

The Community Food Bank in Arizona reported a 30–50 percent increase in requests for food since late 1981.

The Hartford (Connecticut) Food System reported that many soup kitchens and food pantries are seeing a 15–400 percent increase since early 1982 in the number of people they serve.

The Ohio Hunger Task Force reported an 82 percent increase in the amount of food provided and in referral services since 1981.

The St. Louis Hunger Hot Line in Missouri reported helping as many as 120 families per day and receiving 200 percent more requests for food since 1981.

The Kentucky Hunger Task Force reported that food requests have doubled and tripled since early 1982.

These findings come from a survey of the ecumenical Domestic Hunger Project Network of the National Council of Churches in the fall of 1982. Though no formal update survey has been done recently, we understand that many of the groups now receive even more requests for assistance and often must turn people away as they run out of food supplies.

Many elderly people, children, and entire families are now forced to depend on soup kitchens, food pantries, and private nonprofit charities for their only nutritious meal(s) of the day. Numerous direct service providers see more people waiting for food toward the end of the month as food stamp recipients' benefits run out after three weeks. Increasingly, hunger affects people of all ages. Yet children and infants will suffer the most because lack of adequate nutrition in the early years impairs physical and mental development, causing future problems.

All the available evidence indicates that the nutritional status of the poor, already critical in many cases, has become a question of living at a bare subsistence level. In addition, many families who previously had a nutritious diet may be losing ground. It is important to note that they surveys, reports, etc., do not take into account those people who do not have access to food banks and soup kitchens or are too ashamed to ask for help.

Despite reports of the rising incidence of hunger and increase in the national poverty rate, the administration again proposes to reduce funding for the food assistance programs. The Taskforce has testified and written letters urging Congress not only to reject any budget cuts in the food assistance programs, but to restore funds to those programs. We maintain that the federal government is responsible for ensuring that no one in America goes hungry.

This Subcommittee has been very supportive of the food assistance programs. We hope you will actively oppose any cuts and seek instead to restore funds this year. Such a move would be a wise investment in the health and nutritional well-being of this country's future.

HOFFMANN-LA ROCHE INC.,
DEPARTMENT OF FEDERAL GOVERNMENT AFFAIRS,
Washington, D.C., April 14, 1983.

Hon. ROBERT DOLE,
Chairman, Senate Agriculture Subcommittee on Nutrition,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: In connection with your hearings on the Nutrition Status of Low Income Americans, I am taking the liberty of forwarding to you the attached background paper just published by the Vitamin Nutrition Information Service (VNIS) entitled "Nutritional Needs of the Poor in America: Challenges for the Eighties," which I hope will be helpful to you and your Committee.

VNIS is an organization developed by my company, Hoffmann-La Roche, to meet the informational and resource needs of health/nutrition communicators and professionals. VNIS provides authoritative and well-documented background information on the subject of vitamin nutrition and its role in good health.

Your staff informs me that the subject matter and its timeliness may well make it appropriate that it be included as part of the hearing record.

Please do not hesitate to contact me if you have any questions or comments.

Sincerely yours,

GASTON DE BEARN,
Assistant Director.

Enclosure.

VNIS
Vitamin Nutrition Information Service

VITAMIN ISSUES
Volume III No. 1

Nutritional Needs of the Poor in America: Challenges for the Eighties

Reviewed by Mahlon A. Burnette, III, Ph.D.*

Introduction

According to 1980 census data and the Poverty Index devised by the Department of Health and Human Services (HHS), about 29 million people in the United States – 13% of the population – are living at or below the poverty level.[1]

When the definition of poverty is broadened to 125% of the official poverty level (a figure used frequently to determine eligibility for certain assistance programs), the number of "poor" Americans swells to 40.7 million, or 18% of the total citizenry.[1]

The health and nutrition needs of this group are key underlying factors in the current debates about federal spending in the area of food and nutrition.** Improvements in national nutrition and health status have been cited as justifications for maintaining and/or increasing budgets for such programs as National Schoo! Lunch and food stamps, to name the two largest.

On the other hand, critics believe that almost all entitlement programs have been inflated and abused, and that they cannot be supported at such high levels by the present economy.

The debates over how much assistance is "enough" and who is "truly needy" are political in nature and are not the focus of this paper. Rather, the VNIS feels that the following information about the diets, nutritional health and needs of the poor may be valuable to those who wish to form their own opinions on the issue.

*Dr. Burnette is currently Executive Director of L.I.F.E., League for International Food Education. In his previous position as Executive Officer of the National Nutrition Consortium, Dr. Burnette has testified before the U.S. Congress on federal food and nutrition programs.

**The major food and nutrition programs are food stamps, school lunch and breakfast, and WIC (Special Supplemental Food Program for Women, Infants and Children).

Hoffmann-La Roche Inc., Nutley, NJ 07110

I. Nutritional and Dietary Status

Better Diets

Recent survey data (HANES I and II, USDA Nationwide Food Consumption Survey 1977-78) show improvement in the diets of the nation's poor. Overt starvation and nutritional deficiency diseases – such as were discovered in severe poverty areas during the 60's – have been largely eradicated.[2]

The USDA Nationwide Food Consumption Survey of 1977-78 indicated an increased similarity between food used by the diets of upper and lower-income groups as compared with 1965.[3] Studies have also shown that all Americans now buy very similar foods at the supermarket, irrespective of their income brackets. This equalizing trend is believed to be at least partially due to the food stamp program.

Donald A. West, an agricultural economist at Washington State University, compared the food spending practices of middle-class food buyers with those of two groups of poor people – those who used food stamps and those who did not. His study showed that all three categories of people divided their dollars quite similarly among the various food groups. Each category spent about 36% of their food dollars for meat, poultry and fish, and 13% for milk products. The more affluent buyer, however, spent his meat dollars on more beef and veal, while the food stamp buyer spent more on pork and poultry. The middle-class buyer spent more on bakery goods, while the food stamp buyer spent more on flour. The middle-class buyer spent more on ice cream and yogurt, the food stamp buyer more on milk and eggs.[4]

In general, it appears that the food stamp family allocates its food dollar (for food at home) in the same general food categories as the middle-class family, but buys less expensive foods within the food groups. The poor family which does not participate in the food stamp program spends fewer total dollars on food, but allocates them among the food groups in much the same way as the food stamp family.[4]

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A study conducted by the USDA's Economics, Statistics and Cooperative Service in 1979 showed that regardless of income group, people spend about the same amount of money for food used at home – approximately $622 per person in the lowest income group versus $648 per person in the highest income group.[5] Naturally, this expenditure represents a much larger percentage of the poor person's income than that of the more affluent person's: an average 25% v. 6.5% of those studied.

The real disparity between food expenditures by income groups is not reflected in food used at home, but in food away from home. In the 1979 ESCS study, these expenditures were about $238 per capita in the lowest income group versus $316 in the highest income group. It is possible that low income groups were underrepresented in this particular study, and that the average expenditure for food away from home among low income families is even less than $238 per capita.[5]

Analysis of the 1977-78 USDA food at home data by the Science and Education Administration (SEA) has shown that needy families may actually receive more nutrients for their food dollar than the more affluent families. Households with incomes under $5,000 purchased from 5-25% more nutrients per dollar's worth of food than households with incomes over $20,000, based on their food buying patterns.[6]

This is not necessarily a reflection of more careful shopping, however. According to SEA, "A higher average return in nutrients per food dollar does not necessarily mean that households consciously chose more nutritious foods. Diets that are low in cost usually include some relatively inexpensive foods in large quantities. Some of these foods – such as enriched and whole grain flour and bread, some cereals, dry beans and potatoes – furnish substantial amounts of a number of nutrients.[6]

Nutritional Status Improves As Income Increases

In spite of the improvements suggested by food purchasing patterns, data from major nutrition surveys have shown and continue to show that nutrient insufficiencies are more prevalent and/or more severe among lower income groups. For example:

Ten State Nutrition Survey (which focused on lower income, high risk populations overall): "Generally, persons in low-income-ratio states had lower nutrient intakes than persons in high-income ratio states. In the low-income-ratio states, some nutrient intakes tended to increase with an increase in the level of income, while in the high-income-ratio states, this trend was not usually as apparent."[7]

USDA Household Food Consumption Survey, 1965: "Dietary adequacy . . . was related to income. At each successively higher level of income, a greater percentage of households had diets that met the allowances." Although "low-income households had greater returns in . . . nutrients per food dollar, on the average, than households with high incomes, at low incomes, more diets were poor." In fact, 63% of the households with incomes under $3,000 had diets that did not meet the allowances for all the nutrients included in the survey, as compared with 37% of the households with incomes over $10,000.[8]

USDA Nationwide Food Consumption Survey, 1977-78: "For all nutrients except iron and thiamin, the percentage of households that met or exceeded the RDA increased as income increased . . . These lower levels for low-income households conflict with the results reported above . . . [namely] that low-income households fared as well as those with higher incomes."[3]

The following data from the 1977-78 USDA survey illustrate the same trend. Except in the case of iron, the number of diets that fall short of selected problem nutrients decreases as income increases.

PERCENTAGE DISTRIBUTION OF INDIVIDUALS IN SPECIFIED INCOME GROUPS, with nutrient intakes at 70% or less of 1980 RDAs[9]

Nutrient	Income to $6M	$6M to $9,999	$10M to $15,999	$16M and over
Vitamin A value	36%	33%	32%	29%
Vitamin B_6	59%	51%	49%	48%
Vitamin C	30%	29%	27%	23%
Calcium	49%	43%	39%	39%
Iron	29%	31%	33%	33%
Magnesium	48%	40%	36%	35%

These figures are particularly dramatic insofar as they represent people whose nutrient intakes are not only short of the RDA, but are *severely* short – 70% or less of recommended levels. In the lowest income group, almost three-fifths of all individuals surveyed were severely short in vitamin B_6 intake . . . nearly half were severely short in calcium and magnesium . . . around one third were severely short in vitamin A, vitamin C and iron. Nutrient intakes do improve as income increases, but even in the higher income groups, they still fall far short of an optimal picture.

Another analysis of the 1977-78 USDA data compared the diets of food stamp allotment households with all other households. The percentage of households that met the RDA was lower among food stamp allotment households for all nutrients exept phosphorus. Only 12% of food stamp allotment households met the RDA for all eleven nutrients studied.[10]

PERCENTAGE OF HOUSEHOLDS THAT MET RDA FOR EACH OF 11 NUTRIENTS

Nutrient	4,408 Households	627 Households[a]
PROTEIN	95%	97%
CALCIUM	61	43
IRON	80	62
MAGNESIUM	70	42
PHOSPHORUS	93	95
VITAMIN A VALUE	76	60
THIAMIN	86	72
RIBOFLAVIN	91	77
VITAMIN B_6	64	37
VITAMIN B_{12}	80	64
VITAMIN C	89	82
ALL 11 NUTRIENTS	42	12

[a]Households which used food with a money value of 90-109% of their potential Food Stamp allotment comprised the sample.

Why the Discrepancy?

These findings pose a dilemma: if foods used by lower income groups are about the same as those used by higher income groups and if at home food expenditures are similar, why are nutritional inadequacies more prevalent among the poor? Does food away from home (not reflected in surveys) make the difference?

Or is the problem one of methodology? Food "on the average" may not be representative of the majority of poor households, since a few very high values may raise the overall average unrealistically. USDA writes, "Apparently averages for low-income households are inflated by extremely high values for some households."[3]

Another explanation may be the use of vitamin/mineral supplements. When biochemical values are tested, as in HANES and the Ten State surveys, serum nutrient levels are consistently higher among upper income groups. This finding may reflect the broader use of vitamin/mineral supplements among these groups, since 75% of all vitamin users in the U.S. are in the $15,000+ income brackets.

Menus Fall Short

Several investigators have evaluated the nutritional quality of "typical" low-income family meals, or more specifically, of menus recommended in the Thrifty Food Plan and under traditional Basic Four teaching.

The Thrifty Food Plan is one of four food plans devised by the USDA (Thrifty Food Plan, Low Cost, Moderate Cost and Liberal Cost Food Plans in ascending order of cost), specifying amounts of foods from 17 categories that will, in combination, provide nutritious diets for people in different age brackets. It is the legal standard for food stamp allotment.

Evaluating the nutritional adequacy of the Thrifty Food Plan, Lane and Vermeersch of the University of California concluded: "Eight of the 17 nutrients plus energy were below the RDA. These nutrients were magnesium, zinc, iron, vitamin E, niacin, vitamin B_6, folacin and pantothenic acid. Also, thiamin was marginal when the boy is age 13 . . . In conclusion, it appears from this analysis that menus planned by the USDA to illustrate the use of the Thrifty Food Plan are less than satisfactory examples of good nutrition for low-income families, especially for certain nutrients."[11]

In another study at the University of California at Berkeley, Basic Four menus were evaluated for nutritional adequacy, because the Basic Four food groups have been used extensively by nutritionists as a device for teaching people how to plan adequate diets and make wise food selections. In addition, the Basic Four food group guidelines are the regulatory basis for child nutrition and other major nationwide policy programs. The authors concluded: "This menu analysis showed that even though these menus were cited in nutrition publications as examples of good diets, half of the 16 nutrients we evaluated other than energy did not meet the current (1974) recommended allowances, and five nutrients in the Basic Four menu items were below two-thirds of the allowances."[12]

While not developed exclusively for needy population segments, the Basic Four menus do provide a widely-accepted foundation or "core diet" which supposedly will deliver adequate nutrition when other foods are added. However, King et al found that "the other foods on the menus improved intake (energy), but still did not meet the RDA for these nutrients" (vitamin E, vitamin B_6, magnesium, zinc and iron).[12]

II. Who is Affected?

Poverty Groups Parallel High Risk Populations

Population groups known to be at high nutritional risk include children and adolescents, women of childbearing ages and the elderly, regardless of socioeconomic strata.

"The relatively high vulnerability of children and pregnant and lactating women results from increased requirement for calories and essential nutrients . . . . In children, this is because they are growing; in pregnant and lactating women, because they have to feed an additional being . . .

"Nutrient requirements of the elderly, on the other hand, usually are decreased due to lower basal metabolism and decreased physical activity. Their greater vulnerability may result from such factors as the effects of increased physical disabilities and health problems (with regard to) their ability to utilize nutrients. It is also conditioned to a larger extent . . . by socioeconomic and psychological factors, including food shopping problems and degree of interest in food preparation."[13]

When poverty is superimposed upon these pre-existing risk situations, the risk becomes even greater. Unfortunately, this is precisely the case among substantial segments of the population.

For example, children and the elderly combined account for nearly half of the poverty population (17% of all children and 14% of all elderly citizens are in the poverty brackets).[1]

Women are also predominant in the poverty ranks: 33% of all female household heads, as compared to 7% of male household heads, are in poverty income brackets. Similarly, a higher percentage of single females than single males are found in the poverty groups.[14]

Some nutritional problems appear to be related to race, or more accurately to the eating habits characteristic of particular ethnic subgroups. Iron deficiency anemia and to a lesser extent folic acid deficiency were widespread problems among the low income populations surveyed in the Ten State survey. Riboflavin status was particularly poor among blacks; low vitamin A levels were prevalent among Spanish-Americans.[7]

Paralleling these risk groups, poverty in the United States is frequently related to race as well. Nearly a third of all blacks and more than a fifth of Spanish-Americans live in poverty, as compared to about 9% of whites. While the national median income among whites is $16,740, among blacks it is only $10,142. According to 1980 figures, nearly half of all blacks earn less than $10,000, compared to about one-fourth of all whites.[14]

Geographically, the number of impoverished people in rural areas appears to have increased in recent decades. The ratio of urban poor to rural poor is about 60:40, as compared to an overall 73:27 geographic distribution (urban to rural) of the total population. So although in overall numbers there are still more needy people in the cities, as a percent of total populations there are more needy to total people in rural areas.[14]

Not surprisingly, among the worst pockets of hunger and malnutrition revealed in the late 60's were such rural areas as the Mississippi Delta, the coal fields of Appalachia, the coastal swamps of South Carolina and the migrant worker camps of central Florida and Texas.

III. Implications

Poor Health Parallels Poverty and Nutritional Risk

The exact extent to which undernutrition among the needy influences either their general health status or their performance in society cannot be precisely established. Many factors are relevant – housing, sanitation, and immunization, for example – in addition to nutrition.

However, their is a higher incidence of illness, there are more work and school days lost and there is more time spent in the hospital among these same high-risk, low-income groups than among the general population.

According to a report by the Department of Health, Education and Welfare (HEW, the predecessor of HHS), "People in low-income families (less than $5,000) are nearly 5 times as likely as those in the highest income group ($25,000 or more) to report fair or poor health . . . In addition, people in low-income families are 2½ times more likely than those in high-income families to report limitation of activity (due to ill health)." However, HEW cautions in interpreting these figures: "Because causality cannot be determined from these data, limitation of activity may be a cause of lower income."[15]

HEW also reports: "The proportion of infants born at low birth weight is about twice as high among black infants as among white infants . . . Black people are twice as likely as white people to report fair or poor health . . . Black people are 24 percent more likely to report limitation of activity than white people . . . There are also more disability days for black people than white people, and more for people in lower income families than for people in higher income families."[15]

"Income differentials in hospital utilization also increased between 1972 and 1977," the study continues. "In both years there was a consistent increase in both the discharge rate and length of stay as income decreased. Persons in the lowest income group stayed in the hospital an average of 2.4 days more than those in the highest income group in 1977, reflecting in part the poorer health of the lower income individuals".[15]

In summary, health care costs to society are above average for low-income and/or high-risk populations.

Can Better Nutrition Help?

Because so many factors affect a person's health and performance, controlled studies pinpointing the benefit of improved nutrition are difficult to conduct. Several attempts have been made, however. The value of targeted nutrient delivery to specific underprivileged population segments has been assessed in order to judge the worth of programs designed to improve nutrition and health.

Some of the most reliable data in this area come from studies of the WIC program (Special Supplemental Food Program for Women, Infants and Children), because the target populations, the goals of the program and some of the parameters for measuring success are well defined. WIC provides food supplements (including fortified foods), nutrition education and health care to breastfeeding, pregnant and postpartum women, their infants and young children.

A major program goal is improving the nutritional status of mothers-to-be so as to decrease the incidence of low birth weight (LBW) babies. LBW has been linked to infant mortality, birth defects and mental retardation.

One study by the Massachusetts Health Department found that WIC not only lowered the incidence of LBW babies, but also lowered neonatal mortality rates. The data showed that infant deaths in the WIC groups were only one third as high as infant deaths in the non-WIC group. Further, the neonatal mortality rate decreased as months of WIC participation increased.[16]

In addition to these gains, mothers in the program showed significant improvement in hemoglobin and hematocrit values, which are measure of iron status.[17]

Since society must absorb the costs of caring for these LBW infants, WIC's cost-effectiveness was computed against those projected hospital costs. "Comparing the projected hospitalization costs against the total WIC costs, one obtains a benefit-cost ratio of 3:1 favoring WIC . . . These benefit-cost ratios show that the WIC prenatal program more than pays for itself. This is a clear example where prevention is more cost-beneficial than cure . . . In addition, the hospital estimates do not include any longer range costs for treatment of the disabilities caused by LBW . . . If these longer term costs were incorporated into the foregoing calculations, the benefit-cost ratio of WIC would appear even more favorable."[18]

Studies conducted by the Center for Disease Control have yielded similar results:[4]

> *"The infant mortality rate on seven Indian reservations in Montana declined from 31.5 per thousand in 1972 to 16.6 in 1975, following introduction of a supplemental feeding program for pregnant women, infants and young children . . .*
>
> *"Arizona participants in WIC recorded an 81 percent reduction in anemia, 82 percent reduction in underweight, and 64 percent improvement in stature. In Michigan, 30 percent of the women were anemic before WIC but only six percent after participation. Anemia among children participating in Oregon was reduced from 13 percent to one percent. In the Pennsylvania WIC program, the infant death rate for mothers was reduced from 10.6 percent*

before participation to zero afterwards. Immature birth rates decreased from 12.8 percent to 1.6 percent, and pregnancies with complications were reduced from 30.9 percent to 17.6 percent."(14)

Overall, the infant mortality rate in the U.S. has declined substantially during the past decade – a 43% decrease from 1965 to 1977 according to the Office of Health Research, Statistics and Technology. Since WIC has contributed to this decline among high-risk populations, it is credited with at least some merit for this national health gain.(15)

Nutrition and Performance

Early research found that "the omission of breakfast was demonstrated to result in poorer attitude toward school work and to detract from scholastic attainments," and that "all subjects did significantly more work when the dietary regimen included an adequate breakfast than when it was omitted."(19)

Additional studies by researchers from Tulane University investigated the relationships between nutritional status and intellectual function and attentiveness in children. Their conclusions were as follows:

"In a study in 1969-1970, children who received breakfast and lunch at school showed significant improvement in hemoglobin concentrations . . . Children with high hemoglobin levels showed better performance in the Kahn Intelligence Test (KIT) and, in the youngest age group, in simple and disjunctive reaction time tests . . . Similar findings were noted in performance of the associative reaction time test . . .

"In studies in 1970-71 . . . children who received breakfast and lunch improved significantly in performance in the disjunctive reaction time and in continued trials of associative reaction time . . . These studies indicated a relationship between mild levels of nutrient deficiency and performance tasks demanding attentiveness and alertness . . .

"Nutritional intervention through diet or micronutrient supplementation can improve performance in tasks demanding attentiveness. Micronutrient supplementation . . . should be a valuable addition to applied health programs in improving nutritional and behavioral status."(20)

The national school breakfast and lunch programs were implemented in the belief that improved nutrition could contribute to improved scholastic performance among children. A study by the Congressional Budget Office (CBO) reported that as many as a third of America's children go to school in the morning with less than two-thirds of the necessary calories, iron and vitamins A and C. A Washington State study found that 7% of white children, 12% of blacks and 13% of Mexican-American children went to school without any breakfast at all, and that these children had significantly lower intakes of calcium, phosphorus, riboflavin and ascorbic acid. Both of these studies found a marked improvement in the nutritional adequacy of children who participated in the school breakfast program.(4)

That the school feeding programs have improved the nutritional status of poor children is generally accepted, although it has not been definitively proven. Whether or not this may also improve scholastic performance is an area in which further research is needed.

IV. At What Price?

Update on Federal Assistance Programs

Both the cost and the efficacy of federal food and nutrition programs have been matters of extensive political debate. Critics attack and supporters defend the programs with regard to fraud and abuse, program overlap, inflated bureaucracy and the basic concept of entitlement itself. Politics and judgments aside, the following figures illustrate the dramatic growth of food and nutrition programs over the past 10-15 years:

*1. **Food Stamps*** – started on a pilot basis in 1961, serving 151,000 people at a cost to the government of $14.1 million. At its peak in 1980, the program served 22.5 million people at a cost of $11.3 *billion.*

*2. **School Lunch*** – was first authorized in 1946, but its period of rapid growth occurred during the 70's. From a $204 million budget in 1969, NSLP expanded to more than $3 billion in 1980, serving 27 million children on an average school day – about 55% of all children enrolled in elementary and secondary schools. About 45% of the participants received free or reduced-price lunches. The current administration has cut the budget to $2.4 billion by reducing meal subsidies and tightening eligibility standards.

*3. **School Breakfast*** – began as a pilot program in 1966 and was permanently authorized in 1975. Its budget increased from $5.4 million in 1969 to $312 million in 1982. More than 88% of its 3 million participants received free breakfasts in 1982.

*4. **WIC**** – began in 1974 with expenditures of $10.4 million and served an average 88,000 people monthly. By 1982 WIC's caseload had increased to 2.2 million and its budget to about $1 billion.

In addition to these major programs, there have been several smaller food and nutrition programs including elderly feeding (peak budget $202 million), summer food service for children (serving 3 million children in 1979 at a cost of $250 million), NET or the Nutrition Education and Training Program, the nutritional component of Head Start and agricultural commodities distribution.

*WIC is not considered a major program in terms of cost, but rather a key program in terms of cost-effectiveness and the particular population it serves.

VNIS Editoral Comment

There is no question that our nutritional ideal is 1.) to provide education which enables all people to make healthy food choices, and 2.) to provide a food supply that meets all needs. Although we as a nation have made great strides in both areas, we must realize that the achievement of such an ideal is a very long and complex process. Our present reality still falls short of our goals.

Data show that marginal micronutrient deficiencies are prevalent among the poor and that these subclinical deficiencies may have a distinct impact on health and performance in society. Federal cutbacks in food, nutrition and education programs have made it even more difficult for many lower income individuals to obtain nutritionally adequate diets. In light of these and other factors, is it unreasonable to consider fortification and supplementation as useful tools for insuring the nutritional status of impoverished populations?

Targeted nutrient delivery through fortified foods and vitamin/mineral supplements can be helpful for deficient populations – not as a food replacement, but as an adjunct to food programs while we continue our efforts to improve those systems (nutrition education, social and economic delivery systems) which will insure adequate nutrition through the diet. At a cost of a few cents per day, fortification and supplementation are pragmatic and cost-efficient means to alleviate some nutritional problems now, while broader solutions are being sought.

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Once Again, Hunger Troubles America

By Elin Schoen

"I never thought this could happen," Frank said softly. He had temporarily forgotten the embarrassment of being at the Center for Food Action in suburban Bergen County, New Jersey, waiting for free groceries. Frank, 46, had requested that his real name not be used, and, promised anonymity, he talked freely, his luminous black eyes enraged at times, at other times sad, bewildered or resigned. "All the years I've saved, and what I've done in life — I did a little traveling and everything — and it just, it just went that way," said Frank. "I just can't believe it, you know. I've never been like this in my life."

Although Frank was taking home $824 a month (or $9,888 a year) as a machinist, he found himself with little money for food, clothing and gasoline, because his rent and utilities (more than $500 a month) and medical bills usurped most of his income. His 44-year-old wife cannot work because she has impaired vision.

On several occasions last year, Frank and his wife were unable to buy food. A priest referred them to the Center for Food Action, a five-year-old privately funded agency that rents its basement office space from the West Side Presbyterian Church. At times, Frank and his wife had nothing to eat except the canned goods the center gave them — Spam, macaroni and cheese, spaghetti.

The stress of trying to cope took a toll on Frank's health, according to Adele Halsch-La Tourette, who as advocacy director of the center acts as liaison between clients and various governmental agencies. Recently, Frank became seriously ill and had to leave his job. Because he received payment of $500 in workmen's compensation, he could not qualify for welfare. Today he and his wife are living on food stamps and charity.

Mrs. Halsch-La Tourette calls Frank and his wife "typical of about one-third of the families who seek food assistance these days" — "the new poor," "people who were making it five years ago." Some of them own their homes and are paying their mortgages with money that would otherwise buy food. Some come in once and are never heard from again; many, like Frank and his wife, become regular clients. The center, which once served mainly "the hard-core poor" and people hit by one-time emergencies (fires, floods), now tries to help these new arrivals find solutions for the continual emergencies that their lives have become. Too often, there are no solutions. The groceries are a mere Band-Aid in view of clients' unending need.

This winter, as Frank and his wife face the threat of hunger for the first time in their lives, many Americans are learning that hunger is not an issue confined to the developing world. Hunger and poverty are inextricably linked, and although no one knows precisely how many Americans are going hungry or how many are malnourished, there is evidence that, as poverty is increasing, so is hunger. A sluggish economy and the highest unemployment rate since the Depression have aggravated the hardships of the poor and added to their ranks. And according to many experts, the Reagan Administration's budget cuts have also hurt the poor. Yet, this month, the Administration is expected to target poverty programs for further reductions in its 1984 budget.

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It is in the food pantries and feeding centers around the country that the dimensions of the hunger problem appear in sharp relief. "We're like another arm of welfare," says Karen Altfest, a volunteer and chairman of the board of the Yorkville Common Pantry in the basement of the Church of the Holy Trinity on New York City's Upper East Side. Because of a threefold rise in clients over the last year, the pantry recently opened a soup kitchen.

No lines are permitted to form outside the pantry — "The neighbors don't like it," says Mrs. Altfest. Instead, clients jam the indoor stairway long before the pantry opens, waiting for two- to three-day supplies of groceries that tide them over because their welfare or food-stamp benefits have been delayed, reduced, stolen or cut off mistakenly or as a result of the new Federal retrenchment. Or they come because they have been laid off, fired or their wages are insufficient. Some refer to it as the "end of the month syndrome," when cash or food stamps have been exhausted well before the next month's funds arrive.

The numbers of people appearing at church-operated emergency food centers nationally have increased from 40 percent at some facilities to 600 percent at others during the past year, according to the Rev. Neill Richards, coordinator of United Church of Christ-World Hunger Action. The Chicago Food Depository serves 375 local charities, with another 200 on a waiting list. On 14th Street in Washington, nine blocks from the White House, Bread for the City hands out canned and packaged foods to more than 800 people a month — 25 percent more than last year.

In St. Louis, the nonprofit, privately funded Operation Search supplies 90 of the city's more than 200 pantries with donated food. "What concerns me," says Bo Axelrod, its executive director, "is not so much how many we're feeding as how many we're missing." Beyond the problem of too few pantries in the poorest neighborhoods, many people do not know about them or are reluctant to go to strangers for help.

The increase in food theft further illustrates the

Elin Schoen is the author of "Tales of an All-Night Town," an account of life in a poor Illinois community, and often writes on social issues.

plight of the poor. The incidence of shoplifting by the elderly from supermarkets in New York City has risen 25 percent to 35 percent over the last two years, according to Jack Squicciarini, director of security for the Red Apple supermarket chain and coordinator and chairman of the Supermarkets Security Council in New York City. "In ghetto neighborhoods, the percentage is even higher," Squicciarini says. "We've apprehended people with social security checks of $63 a month. In a way, you can't blame them for stealing food. How they're supposed to live I don't know." Squicciarini also tells of 8-, 9- and 10-year-olds who have been caught pilfering supermarket shelves — with the approval of their parents. "People are hurting. I could show you stores up in the South Bronx where our garbage goes out at night and, within a minute, 40 people are going through the garbage. It becomes leveled." Squicciarini says that such foraging has progressed to more affluent areas of the city.

Hunger in America has changed considerably since the late 1960's, when a team of doctors sponsored by the Field Foundation, a nonprofit research organization, discovered cases of kwashiorkor and other starvation-related diseases in the Mississippi Delta and other impoverished areas of the South and Southwest. When a second team toured those areas in 1977, it observed "far fewer grossly malnourished people," but noted that, although Federal food programs had wrought "enormous progress," they still met "only the barest subsistence needs" of recipients. The doctors asserted that the programs reached only about half of the people who needed them. They concluded that hunger in America persists, but that the issue of malnutrition had become "a subtler problem."

Dr. Mitchel B. Wallerstein, associate director of the International Food and Nutrition Program at the Massachusetts Institute of Technology, explains, "Here, as in the developing world, the poor have no voice. Also, most people who are undernourished don't come in to clinics. It's very difficult to say, 'Cut the poverty programs and you'll have X cases of malnutrition.' I have every reason to suspect we'll be seeing more cases of malnutrition. But we won't be able to document this unless a lot of money is put into studies, which this Administration probably won't be willing to do."

Today, growth stunting and iron-deficiency anemia are the major indices of malnutrition in the United States. Iron-deficiency anemia is of particular concern, experts say, since it may interfere with both cognitive performance and resistance to disease. Despite a dozen or more years of Federal nutrition programs, the national incidence of growth stunting and iron-deficiency anemia among poor children has not changed substantially, according to Arnold E. Schaefer, executive director of the Swanson Center for Nutrition Inc. in Omaha, Neb.

Dr. Frederick L. Trowbridge, director of the nutrition division of the Center for Health Promotion and Education, Centers for Disease Control, United States Public Health Service in Atlanta, Ga., cites figures from the National Center for Health Statistics. "Among low-income children attending publicly supported health programs, principally W.I.C., prevalences of 8 to 10 percent in growth stunting and 11 to 18 percent in iron-deficiency anemia are observed," says Dr. Trowbridge. "This compares with a 5 percent prevalence for both expected in the general population."

Diagnosed cases of anemia and obvious instances of low weight and height for age may well represent "the tip of the iceberg," asserts Dr. Paul Zee of St. Jude's Children's Research Hospital in Memphis, Tenn. Dr. Zee described "the iceberg phenomenon" in a 1979 paper: The "sporadic appearance of severely undernourished infants in a city hospital reveals that there is a considerable number of children that are failing to thrive in the community . . . These children are not undernourished enough to come to medical attention . . . But an occasional child may suddenly become severely malnourished because of a superimposed social factor: for example, unemployment of the father."

Buttressing evidence of this "subtle" malnutrition among the poor are studies made in various localities that demonstrate not only the persistence of hunger but the difficulties poor people have in obtaining adequate food. The average food-stamp family's gross monthly income is $349 (or $4,188 a year), and the average food-stamp benefit is only 45 cents per person per meal. Low-income families seldom have enough money to buy food economically, in large quantities, and often lack a way to get to supermarkets in middle-class neighborhoods where they can avail themselves of sales and discounts. They often end up paying disproportionately high prices at nearby convenience-food stores.

Poor people, already purchasing the cheapest food items — starches, frankfurters, chicken necks and the like — have no place to economize when overall prices of food rise. The swelling costs of other rock-bottom necessities — housing, utilities, public transportation, medical care and clothing — further drain their food budgets. The "heat or eat" phenomenon (robbing one's own pantry to pay the power company) has intensified for the poor, who pay one-quarter to one-third of their income for utilities, while welfare and food-stamp benefits have consistently lagged behind the cost of living.

This is my emergency food grant," Diane says, pulling a frost-covered package of chicken backs from the freezer compartment of her refrigerator. "Just fat and bones, but the marrow is good for you."

Diane (not her real name) has been on welfare, "this crazy circle," for 10 years, ever since forced by illness to stop working. She is divorced and has three children, aged 20, 13 and 11. She lives in a city-run housing project, a dirty-blond brick monolith in a section of Brooklyn where residents are afraid to walk the streets after dark. It is the 23d of the month. Diane notes the date because her food stamps, which arrived on the 8th, ran out the day before. The refrigerator is nearly empty — some Jell-O, leftover mashed potatoes, plenty of onions (they "make the food go round"), nearly empty jars of grape jelly and spaghetti sauce.

Diane sits in her kitchen, studying the Offtrack Betting forms spread out on a table to play the numbers, her back to the stove, where her oldest daughter fries the chicken that, with noodles, will make up their one meal of the day. The greasy haze from the pan hangs in the air, graying the turquoise walls, the spattering sound mingling with the blare from a television set. Diane, after consulting her daughter, writes a number from each of the Offtrack Betting forms on a piece of paper and gives it along with a dollar to her 11-year-old son, who takes it to the bet shop.

While waiting for her son to return, Diane shares with a visitor the intricacies of "the welfare diet." She talks about wanting to be free of welfare, working at a legitimate job, but her medical history of kidney problems and phlebitis makes getting even a part-time job difficult. Moreover, if she had a job, Diane would be without Medicaid, an Aid to Families with Dependent Children (A.F.D.C.) benefit that she needs not only for herself, but also "in case the kids get sick."

In addition to playing the numbers, Diane pads her meager budget by occasionally working in the bet shop. Among welfare recipients, off-the-books jobs are a fact of life. "It's the only way they can survive," says Auxiliary Bishop Joseph Sullivan, executive vice president of the Board of Catholic Charities of Brooklyn and Queens.

"We all sneak and work," Diane says. "And we do jobs no one else will do. And I don't drink. I'm no partyer. My money goes into my house — my fridge, basically." Diane can earn $35 a day working at the bet shop, a sum she considers worth the risk of "hassles with the law."

Sometimes Diane and her family have had nothing but farina to eat. Or pancakes. Or the rice she buys in 25-pound bags. "Did you ever eat nothing but rice for a week and a half? . . . And we use a lot of bouillon. Bouillon cubes are about 59 to 89 cents a box, and you put that with a cup of water and that's a meal. If you got noodles in the house, you can throw some noodles in there. If you don't, you just drink it plain. . . . I add beans, onion and tomato purée — it's cheap, 79 cents for a 29-ounce can — to a package of franks, and add mustard. It's not great, but it's tasty.

"I mean, there's surviving and then there's eating and then there's nourishment. And we very rarely get to the nourishment, you know. That's out of the ordinary. That's set aside for holidays and special occasions like birthdays and something like that."

Diane's son runs in, smiling, waving the 10 dollar bills that she won from her dollar bet. Diane shrugs, lays the money on the table, and then hands him $2 to buy milk. Diane shakes her head, thinking aloud. "When they say starving, we're starving. We're starving mentally. We're starving physically. And it's like Reagan has pulled the cork on this whole big tub of social nothingness. And we're all going to drown. And there's nothing nobody can say to make it easier or anything like that. It's like being raped from within."

Yet Diane's opinion of welfare has something in common with President Reagan's: "Welfare as it stands now," she says, "should be abolished. . . . It's not giving you anything, and it's not teaching you anything. . . . It's like I heard of girls that say they got a pimp. I mean, the pimp takes them and treats them

like a queen for a little while and then starts stripping them of all their values, their moral character and then just degrades them to the lowest — that's welfare. It makes you feel like, hey, what's the sense of getting up in the morning and turning around because it's going to be the same old program."

Diane's views on welfare are far from unusual among others trapped with her in that "crazy circle." "President Reagan makes some good points," says Rita Webb Smith, a one-time welfare recipient who now runs a community "survival clinic," instilling self-help principles in people who have been conditioned to look to the Government for sustenance. "We've always given the poor handouts and not helped them build toward self-sufficiency," says Mrs. Smith. "That's why I never liked the poverty programs. But these budget cuts are too quick, too drastic. It's like the rug being pulled out from under people."

"We've done some modeling of the effects of the 1981 budget on poor people," says Donald W. Moran, executive associate director for budget in the Federal Office of Management and Budget. "We try to design these things from the standpoint of policy, rather than from the standpoint of a long list of computer runs. We intend to do a lot more work, not in terms of what is our budget cut — because every budget starts out at zero — but what does the budget provide. It may run less or more than last year, but the comparative dollar magnitudes are not as relevant as what is being provided. The question is, what is that? And is it enough to meet the need? In our judgment, the answer is, yes, it is enough."

Yet some experts disagree, including Robert Greenstein, head of the Center on Budget and Policy Priorities in Washington, a privately funded nonprofit organization that analyzes Federal budget and fiscal policy issues with an emphasis on domestic programs for low-income people. Under the Carter Administration, he served as administrator of the Food and Nutrition Service in the Department of Agriculture. Entitlement and benefit programs account for nearly 50 percent of the Federal budget, but most of that funding goes to programs serving every income group, such as Social Security, Medicare, military and Civil Service pensions. Food stamps, A.F.D.C., Medicaid and other programs targeted at the poor, he says, represent only about 10 percent of the budget. Yet this area has been cut far more than other sections of the Reagan Administration's budget. In the Carter Administration's 1981 budget, Federal appropriations for low-income programs were $100 billion. In 1983, they are expected to be around $82 billion, which, adjusting for inflation, represents a reduction of more than 28 percent over the last two years.

Basing his study on recent figures from the Congressional Budget Office, the Department of Agriculture and the Department of Health and Human Services, Greenstein has estimated the impact of the Reagan Administration's budget cuts and rewritten regulations: Nearly one million people no longer receive food stamps. In addition, close to 20 million receive less in food-stamp benefits than under prior law, and about 80 percent of those savings was made by decreasing benefits to families whose gross income fell below the poverty line — $7,760 a year for an average household of three. A.F.D.C., the basic welfare grant, is now smaller for some 260,000 families. Around 365,000 additional families have already lost this assistance — and, in some states, the accompanying Medicaid benefits as well. Approximately 750,000 low-income children are no longer eligible for free school lunches, and 500,000 children have been dropped from the summer food-service program. Because of the 30 percent cut in the child-care food program and other reductions in Federal support for low-income child care, some day-care institutions are reducing services, raising fees or closing. The already modest energy-assistance program has been held for 1983 to levels only 7 percent above the amount provided in 1981, despite significant increases in natural-gas prices and heating costs. Programs such as Medicaid and housing for the poor have also been pared.

Clearly, cuts in food and nutrition programs affect the diet of the poor. Less obvious but equally devastating is the new financial burden imposed by other austerity measures, which further erodes the ability of poor families and individuals to feed themselves adequately.

Although the statistical picture alone is dramatic, some experts question whether numbers should be the sole criterion in assessing hunger. Dr. Johanna T. Dwyer, director of the Frances Stern Nutrition Center at Tufts New England Medical Center, says, "If a person ate dog or cat food for a month, he would not necessarily suffer from clinical malnutrition. But even though there might not be anything wrong with that person from a clinical standpoint, there is something wrong ethically and morally with a country of our capabilities that doesn't do something to prevent its poor citizens from having to resort to things like that. There are dimensions to the hunger problem that one cannot measure on biochemical indices or in nutritional status surveys. I don't think people should have to worry about getting enough to eat in the United States of America."

President Reagan has suggested that volunteerism and private charity can help mend the widening holes in the Federal "safety net." The reaction of religious organizations, long the backbone of nongovernmental charity, indicates that the suggestion may be impractical. "There is absolutely no way the churches can compensate for loss of Government aid," says Auxiliary Bishop Joseph Sullivan of New York City. "It's just beyond human capacity. About one-third of our parishes are in poverty areas to begin with. They can't keep up their buildings as it is. And it's these areas where the demands are the greatest."

The Rev. Neill Richards of the United Council of Churches agrees, saying, "It's even questionable if we can continue the amount of support we've been giving, in light of the increased demand."

At the same time, the specter and, in some cases, the reality of Federal cutbacks have given an impetus to organizations and individuals to try to be more self-reliant. "Other liberal groups accuse us of being soft on Reagan," says Barbara Bode, president of the Children's Foundation in Washington. "But we're merely being realistic." The Children's Foundation, a nonprofit national advocacy center for child nutrition and home-based child-care programs, once was funded by the now-defunct Federal Community Services Administration. "Now we're funded through foundations, churches and private donations," says Miss Bode, "but in two to three years, we plan to be self-sufficient, not dependent on grants. We're starting a number of income-producing projects — for instance, selling medical and life insurance to day-care associations, publishing a cookbook for family day-care providers. And we're trying to show providers around the country how they can get along without subsidies should Federal support of family day care be cut; how to act as businesses, taking tax deductions. . . ."

Some groups will survive no matter what, and so will many individuals. Yet many people cannot fend for themselves because they are too old or too young, mentally or physically disabled, or demoralized or otherwise crippled by poverty. The poverty programs may be inadequate, flawed, problematical, as many critics have charged, but, for the moment, they are all the poor have.

To chip away at these programs would not substantially reduce the Federal deficit, estimated at between $150 billion and $200 billion for fiscal 1983. "Since these programs have been severely cut already," says Robert Greenstein of the Center on Budget and Policy Priorities, "since the poor have done far more than their share to balance the budget, equity dictates that further deficit reductions be directed elsewhere — at the military and the high-income people who can most afford to make some sacrifices, but who have been actually given windfalls. Further cuts in poverty programs really would do incalculable harm."

Indeed, the economic recovery President Reagan promises may come too late, if it comes at all, for people such as Frank and his wife or Diane and her children.

"After all is said and done," an official from the Department of Agriculture commented, "there will always be malnourished people in this country because of sociological factors, psychological factors. And you can't look to the Federal Government to solve all these problems. I would say maybe that argues for going back and redesigning a lot of our programs to be very specifically targeted. . . . But the real solution to poverty-related malnutrition is removing the poverty."

In 1977, the Field Foundation medical investigators qualified their accolades for food programs with the observation that jobs (along with good health care and housing) should be the Government's top priority in aiding the poor. Concurring, Dr. George G. Graham, professor of human nutrition and pediatrics at Johns Hopkins University, says, "For 13 years, we haven't been addressing the basic problems — quality of public schools, housing, job training, job opportunities."

"Let me put it to you this way," says Donald Moran of the Office of Management and Budget. "If the whole economy does not get better, then no amount of social-welfare spending is going to fix the problem." ■